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(CONCLUDED.)

CHAPTER VII.

ARTICLE 1.

TREATMENT—BLOOD LETTING.

There appears to be a notion amongst many physicians that when we have determined that a given case is one of typhoid fever, it is to be let alone and no attempts made to control it—as in this age of progressive improvement, when we have named our children we suffer them to pursue their own course without re-

straint. One conclusion is about as sage as the other. By ill-tempered, rash, and inconsiderate conduct we may do immense injury in either case. On the contrary by great care, vigilance, prudence, and firmness, we may do much good.

I wish it was in my power to give plans of practice, better settled than any I have seen yet, as also something which would promise more success than usually attends our best endeavors. Nor have I the consolation to know, that among those who have been long familiar with the disease, there is a greater unanimity as to the best mode of treating the complaint, or a more fortunate result in their treatment, than may be found in this vicinity. I am ready however to give what seems to be the treatment in this section, according to my own personal experience, aided by the observations of my professional brethren, with whom I have made it a point to converse freely whenever opportunity offered. In delineating the course of treatment I shall take up one means after another, and first as to

Blood-letting.—My experience and observation as to this remedy, are both very limited. I have myself bled but one patient in this disease, and that was under a false diagnosis. The pulse indicated that it would *bear* the lancet though it did not *demand* it. The consequences were very unpleasant; continued prostration with repeated syncope gave me much uneasiness. The case however terminated favorably. In another patient of mine, in which there was considerable headache, and some firmness of pulse, bleeding was performed in my absence, without any marked effect save a temporary abatement of the headache. The patient did not seem to be injured by the operation, but the case eventuated unfavorably. In a third, late in the disease when the pulse was over one hundred and thirty in the minute, profuse epistaxis having come on, bleeding to something more than a pint

was instituted for the relief of that symptom. No benefit resulted; I saw the patient next day, the hemorrhage was stopped, not however by the bleeding, but death followed at the period of four days from the bleeding. In a fourth during the third week a patient was bled to a small amount say ℥iii upon some increased fullness of pulse, occasioned probably by the action of quinine. I saw this patient for the first time the day before he was bled, and did not consider him beyond remedy. The day after the bleeding, I saw him again, when it seemed to me he was so. It is certainly true however that he was in a condition at my first visit which did not promise much.

I do not conceive that I have anything to do with the practice in other countries, else it would not be difficult to find apparently strong evidence, that blood-letting is an agent of great value. I would also refer to the amount of blood sometimes lost from the nose or bowels in the latter stages of bad cases of fever, where yet the patient recovers. Although I am not prepared to say in what the effect of hemorrhage differs from that which follows blood-letting to the same amount, or whether it does differ, I have thought it my duty to allude to it. I will also take occasion to say here, that this consideration has been weighed with much interest, viz.: *Inasmuch as considerable hemorrhage sometimes takes place in advanced stages of very bad cases, and the patients yet recover; is not this an evidence that venesection was called for in the early stage, but that call not appreciated?* Such interpretation will be given readily by one who thinks blood letting an important agent in the disease. Such may be the proper view. But I would observe that, so far as my observations go, hemorrhage is much more apt to occur in some families than in others. For instance, of forty-three patients seen in the last twelve months, considerable hemorrhage occurred in six cases. Of these, two occurred in one fami-

ly, they being the only cases in that family; and four in another family in which there were nine cases.

In this second family, there was a patient who had a pulse decidedly fuller than is usually found in this fever, at least in this vicinity; one which would have justified bleeding. It however was not resorted to. During the continuance of this case, I reflected much upon this point. If hemorrhage occur in this case, how much weight is to be given to that circumstance, as indicating the necessity of blood-letting at the commencement? It appeared to me then, and it does yet, that the formation of a proper conclusion would have been attended with much difficulty. That however was one of the cases in which no hemorrhage occurred.

Again one of the patients at Mrs. Lightburn's presented a pulse of much the same character; and I caused him to sit up, intending to bleed him if his pulse retained its fullness in the sitting posture; his pulse however flagged upon rising, and he was not bled. Again, in one of the cases at Mr. Cooper's in 1841, the pulse was fifty per minute and full, such as would seem, under ordinary circumstances to *demand* bleeding. It however was not performed. Each of these cases had a speedy convalescence.

Topical bleeding is less liable to objection. In many cases where there is much pain in the head or abdomen, abstracting blood by cups may be practised with much advantage.

ARTICLE 2.

EMETICS

May be used with a very reasonable expectation of

benefit in the early stage of the disease, when there is nausea or oppression of stomach, when there is a yellowish tinge upon the tongue, or a bitter taste in the mouth. During the progress of the disease an emetic may be administered when there appears to be a considerable redundance of bile or phlegm, by which the stomach is oppressed. It is however always to be borne in mind that when diarrhea is present to a marked degree, we cannot depend upon an emetic operating well, how desirable soever it may be. In such cases, it is always apt to run off upon the bowels. Even in the advanced stage I have seen an emetic which acted mildly do much good, but it has been when there was not much diarrhea.

On the other hand, an emetic of tartrite of antimony and ipecac, administered on the tenth day of disease, where there had been much watery purging, failed to vomit effectually, but ran off by the bowels, producing great prostration, serous bloody stools, &c. Death followed as a consequence.

When there is much diarrhea therefore, we should not venture upon the use of emetics without very cogent considerations, and under all circumstances we should watch their effects with great care. Of course it would appear advisable to select an emetic which is not apt to affect the bowels—therefore we prefer ipecac to tartar. I do this even when no diarrhea has appeared for fear it should be excited by the operation.

ARTICLE 3.

CATHARTICS

Are very important agents in the treatment. If an emetic has been administered, it should be followed at

the interval of twelve or twenty-four hours by a cathartic. Unless there should be something to forbid the use of mercury, I almost always give calomel or blue-mass in the first purgative. If there is any disposition to diarrhea, I generally combine with ten grains of calomel as much Dover's powder; or six grains of calomel, as much blue-mass, with the Dover's powder, or its equivalent of morphia and ipecac. Some physicians think that in cases where diarrhea is present blue-mass is peculiarly appropriate; that it checks the diarrhea. That this last is many times true there is no doubt. But the same is true of calomel. On the contrary, in many instances there is no marked diarrhea until an emetic or cathartic is given; hence some object to the use of medicine because it is apt to produce this state of things. But the truth is, that if diarrhea has not appeared before, it is very apt to occur about this time; whether medicine is administered or not. We therefore give a cathartic combined as above without much attention to the presence or absence of diarrhea. If there is diarrhea when the first medicine is administered, and it should not be checked by it, it should be repeated at an interval of twenty-four or forty-eight hours. If it still continues, small doses of blue-mass with morphia and ipecac. say pil. hydrarg. gr. iii, ipecac and opii aa. gr. ¼ or an equivalent of morphia in lieu of the opium, to be repeated every four or six hours as necessity may indicate, will be proper. If there should appear a deficiency of bile, or a derangement of its quality, this will be the more proper. In such cases too, an occasional dose of grs. x or xii of blue-mass will be called for during the course of treatment, and that though there may be continual necessity to restrain the bowels. If under this treatment, the dejections are more consistent with an admixture of bile, we will consider ourselves as making a favorable impression upon the disease. At any rate, it is desirable that the bowels be moved decidedly though

gently, in the first two or three days of the disease.

If there should have been no diarrhea, or indeed if there should be, and the bowels should not be moved in eighteen hours after the administration of the purgative, it may be well to give a small dose of rhubarb, castor-oil, or epsom salt. Or if there should be reason to think that there are worms in the bowels, some oil of wormseed may be added to the castor-oil, provided we have a good article; if not, Fahnestock's vermifuge may be substituted for the oil, or an infusion of senna and spigelia may be used.

It is to be remembered however, that any of these adjuncts may act more powerfully than is desirable. Indeed three Seidlitz powders taken in the course of the day succeeding that on which a mercurial had been administered, produced a couple of satisfactory stools, and afterwards caused much griping with watery bloody stools, which it took two or three days to rectify. The same state has followed the administration of rhubarb given as an assistant to calomel. We should always therefore, watch our remedies carefully and be prepared to interfere, when they begin to act unkindly.

Here I would make a few remarks upon the use of calomel in this form of fever, as compared with its use in bilious fever. In this latter disease, if our calomel was followed by serous purging, we increased the dose with confidence to ℈i ℥ss, ℥ii, or in some few cases of unusual obstinacy to ℥i. This is the largest dose I ever gave, and that perhaps not a dozen times in a period of thirty years practice. We confidently expected to effect by this course, consistent, bottle-green, bilious stools, and as confidently an amendment of the patient under these discharges. Indeed, in a bad case it was not usual to see amendment until an impression resulting in this kind of purging was made. Under this conviction I have at divers times, when I found my patient evidently better, and no purging had taken place, predicted with confidence,

that such purging would ensue in the course of the next twelve or twenty-four hours. Nor do I remember a case in which the prediction was falsified.

Here however, the state of things is different. We cannot give large doses of calomel with the assurance that consistent stools will follow—at least I never tried it except in two cases. In those ʒi of calomel only increased the watery purging which followed smaller doses. Neither have I in any case of typhoid fever, seen calomel in any dose, produce the consistent bottle-green, bilious stools which we consider so favorable in bilious fever. I have seen dark green stools, but they have been mixed to a considerable extent with mucous. The green too is of a shade materially different, they also have a shining glossy appearance, altogether different from those before mentioned. Neither does amendment have any connection with the appearance of stools of this kind, on the contrary patients may, and frequently do get worse during their continuance.

In a certain proportion of cases, a suspended secretion of the liver attends this fever, which accompanied by a state of irritation in the mucous membrane of the bowels, causes a discharge of considerable quantities of whitish mucous. Here small doses of calomel or blue-mass with opium and ipecac are again called for.

Although a vitiated or suspended secretion of bile is present in a considerable proportion of cases, it is by no means necessary to the existence of the disease. On the contrary, in many cases though there may be considerable diarrhea yet the admixture of bile appears to be in fair quantity. The fault being in the excess of watery particles, not in a deficiency of bile. The excretion is excessively fetid to be sure, but that fetor is acquired below the duodenum. Further, many cases run their course, with very little variation in the character of the stools for a long time; at length mixed in this watery dis-

charge, a very few minute portions of consistent, apparently well elaborated feces make their appearance. These gradually increase in size and number, until as convalescence advances, the feces assume more and more a healthy consistence and aspect. In cases of this kind, in which there would seem to be no marked deviation in the quantity or quality of the bile, mercury, as a cholagogue at least, does not seem to be demanded. It is not necessary to stimulate the liver when that organ is already doing its duty.

Ca'omel in doses of fifteen to twenty grains has been given for the purpose of arresting hemorrhage from the bowels, and it is said successfully; blue-mass, opium, and ipecac, as recommended for mucous stools have likewise been given for the same symptom, with satisfactory results. And in some cases although the hemorrhage was considerable, it has been let alone, and that too with success. The truth is, I do not think we understand the cause and import of this symptom. If it occurs, as there is good reason to think it sometimes does, from the erosion of a considerable vessel, we shall probably be unable to control it by any means; if it is from the capillary vessels of the mucous membrane, it may relieve the congested vessels or be in some degree amenable to medicines. When in moderate quantity, and indeed in some cases when it could not be considered moderate, it has not appeared to injure the patient at all. Yet it is an ugly symptom and one which may prostrate the patient very speedily.

When it becomes necessary to open the bowels in the latter stages of the disease, injections of warm water should be used for that purpose, unless blue-mass or some other laxative should seem to be called for. In that case we should still be on our guard, lest whatever is given should irritate the bowels improperly.

ARTICLE 4.

MERCURY.

Of *mercury*, given to produce its constitutional effects, I know little. I have never given it for that purpose. In some cases I have had a sore mouth to appear during treatment. In fact I have thought that effect rather easily produced during this fever. I have seen this state continue a week, the patient all the time growing worse. Again, I have seen the patient improve during its continuance, without however being at all satisfied that convalescence was affected in any degree by its presence.

ARTICLE 5.

TONICS AND STIMULI.

Where there is a perceptible periodicity, quinine has appeared to be decidedly beneficial in arresting the paroxysms and mitigating the severity of the disease; but I do not know that it can be depended on to shorten its duration.* It is true however that it has sometimes *appear-*

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*I am inclined to think that there is frequently a periodical depression in this disease which escapes observation, *e. g.*: Whilst sponging a patient who complained of warmth, and whose forehead felt warm to my hand, I observed a very perceptible lividity of the lips and also of the nose; this lividity indeed was perceptible in the countenance, but would perhaps have escaped observation had it not been for the nose and lips. The toes were very slightly cool. This was all the evidence of depression. Acting upon this hint, I gave ten grains quinine a few hours afterwards and repeated twice a day for several days, with, apparently, the most unequivocal good effects.

ed to have that effect; and some of my medical friends have a considerable confidence in its powers in this particular. In the latter stages, when the powers of life begin to flag, it may likewise be administered with benefit. It has appeared to me that under these circumstances, a combination with a small portion of blue-mass adds very much to the beneficial effects of the quinine. Dr. Desha places much reliance upon quinine combined with calomel or blue-mass, as an antidote for profuse diarrhea. I have used calomel gr. xii with quinine gr. v, or a similar dose in several instances with much apparent advantage. I have used it too where no benefit resulted from it. Altogether I have a favorable opinion of the prescription and think it well worthy a fair trial. It may not be altogether irrelavent to remark that in 1833 during the cholera, I thought nothing insured a satisfactory action from calomel so certainly as a combination with it, of five or ten grains of quinine. For this condition of the bowels Dr. Barlow has used with much satisfaction the tinct. camph. in doses of a teaspoonful.

I have seen, since writing this essay, some cases in which quinine appeared to have a most happy effect, *e. g.:* Mrs. G., February, 1849, had taken a small dose of calomel and some smaller doses of blue-mass, ipecac, and opii, without any apparent benefit. Having a profuse watery diarrhea, frequent small pulse, tongue thickly coated and dry, extreme muscular weakness, incoherence; she took quinine grs. v in the morning and again in the evening. After that grs. x every morning for several days. The dose was then gradually diminished. No other medicine. Under this course the diarrhea diminished and eventually constipation was established so that she had no stool for six days, when her bowels were moved by injection; the tongue improved gradually, the pulse came down, and her strengih increased, and she had a regular though tedious convalescence.

Stimuli in the form of wine, brandy, or whisky, have seemed to exert a very beneficial influence in a few cases, those cases however have been but few. Whether their use was delayed too long, or I was unfortunate in my selection of cases, I know not, but upon the whole I have no great cause for gratulation. Some of my brethren however speak much more encouragingly of their use. In one case I used whisky pretty freely, where there was a distinct pulsation of the heart, one hundred and forty to the minute, with a weak one at the wrist seventy to the minute. It did no good. This was the case before mentioned, in which the emetic operated so unfortunately. Was it a case adapted to stimuli? Generally I have considered a weak impulse of the heart as indicating a necessity for supporting the powers of life.

ARTICLE 6.

APPLIANCES TO THE SKIN.

SECTION 1. *Blisters.*—When there is considerable pain in the head or abdomen, when venesection or cupping has been used if thought advisable, or the time at which either would have been allowable has been lost, a blister to the nucha or abdomen as the case may be, can be used with much promise of advantage. Upon my first acquaintance with the disease, I used blisters on the abdomen in nearly every case where there was any decided tympanitis. Such I think is the practice with many physicians. I have for several years, ceased their use for that symptom, for two reasons: One is, I am not sure that I have in any instance seen a decided advantage from their employment. Secondly, on account of their inconvenience. They occasion a considerable annoyance in

the various motions of the body, and in the frequent risings to stool, the dressings are very apt to become deranged. But the chief inconvenience arises from their liability to produce stranguary. And I think this liability is decidedly greater in typhoid fever than in most diseases. As intense a degree of suffering as I have ever witnessed was from the re-application of a blister. I therefore disregard tympanites as an index, and am guided by pain; and sometimes when there is a torpor of the liver I apply one over that, as for the same symptom in other diseases. Occasionally we may take advantage of a blistered surface to apply morphia to it when there seems to be occasion for it, and we do not like to give it by the mouth or anus. I have seen a grain of morphia sprinkled upon a plaster of cerate and applied to a blistered surface induce sleep when there had been great want of it. I have likewise seen restlessness sensibly abate under its use. We should remember, however, that morphine, used in this way, will sometimes affect the system as sensibly as if given by the mouth.

Sec. 2. When we should fear ill effects from the application of a blister, or the occasion may seem to demand some counter irritation, but yet the blister may seem unnecessarily severe, or there may be sufficient reason to think that it may not be necessary to keep up the irritation for a considerable period; sinapisms offer themselves as a suitable substitute for the blister. They may be used repeatedly on the same or adjacent spots, as long as may be deemed advisable. They have one advantage in requiring no subsequent dressings. It has appeared to me however, when I have applied a blister on a surface which had been acted on by sinapisms, that the blister did not draw as well as upon a surface to which no sinapism had been applied—unless indeed, it was applied pretty soon after the removal of the sinapism. My explanation of this circumstance is, that the sinapism produces a

state of the skin similar to that produced by a slight burn. A milder remedy for the same purpose, yet one by no means to be despised in abdominal uneasiness, is a poultice applied as circumstances may require.

Sec. 2. Inferior to no remedy in this disease is the external application of water, cold or warm, as the case may require. When there is severe pain in the head, a stream of warm water poured for some time on the forehead will be found very efficacious in relieving it. Cold water applied in the same way or by cloths, will in many cases answer equally well. When there is much pain or heat, or both in the bowels, cloths wet with cold or warm water, especially the former, and kept constantly applied, will be found both grateful to the feelings and serviceable in relieving the symptoms. Free and frequent sponging with cold water will be found particularly efficacious in reducing the heat of surface and febrile activity of the pulse.

Sec. 3. *Pediluvia.*—As there is great tendency to coolness of feet and knees, bathing the feet and legs in warm water two or three times a day, is often followed by much advantage. When there is much muscular prostration, and the patient is unable to bear the exertion of sitting up, he should be turned across the bed with his legs over the side, and his feet in a bucket of warm water, elevated to a proper height. When replaced in bed, the feet should be wrapped in warm blankets or have bottles filled with warm water or a warm brick applied near them. These warm bodies ought to be renewed whenever the extremities become cool. When there is much pain in the back, loins, or even in the limbs, it may very frequently be removed by rubbing the part with laudanum, or equal parts of laudanum and ammoniated alcohol.

ARTICLE 7.

DIAPHORETICS.

As there is generally a marked dryness of the skin, it would seem probable that this class of remedies would be particularly called for. Our anticipations have not been realised in their employment. And when a decided moisture is observed upon the skin, improvement does not always follow. Yet it certainly is desirable to keep the skin soft and as near the natural condition as possible. For this purpose Dover's powder or a mixture of morphia and ipecac. is perhaps oftener used than any other formula. Would the old prescription of spt. mindereri with vin. antim. and spts. nitre be beneficial? It is adapted to many forms of fever, particularly when there is some tendency to irritability. No diaphoretic is better than frequent ablutions with cold water.

ATRICLE 8.

OPIATES

I have generally found valuable in the treatment of this fever. As mentioned when speaking of purgatives, I have generally found it proper to combine them in some form with the purgatives used at the beginning of the disease, to obviate irritability of the bowels. They are also sometimes necessary to procure sleep or remove restlessness. When it is necessary to give them by the mouth for this purpose, especially towards the commencement of the complaint, it is proper to combine them with some febrifuge to obviate their stimulating effects. When it is necessary to restrain diarrhea, that is when there are more than four watery discharges

of moderate size in twenty-four hours, or larger, but fewer stools, amounting in all to more than a quart, we can give by injection from fifteen to thirty drops of laudanum in two ounces of warm water or thin starch, after each stool until they are reduced within due bounds. It sometimes happens that the bowels are too irritable to admit the retention of even that small bulk; in that case, half a grain of opium added to enough castile soap to make a common sized pill, introduced up the rectum, will be found a valuable expedient. For stranguary, whether arising spontaneously, or brought on by the application of a blister, I know of no remedy better than opium. This symptom may occur when there is occasion to restrain the bowels, or when the bowels do not require interference, or when it may be necessary to move them. In the first or second instance, from twenty to sixty drops of laudanum, according to the urgency of the case, in two or three ounces of warm water thrown into the rectum will almost always relieve it. If the bowels require to be moved, then the same quantity in half a pint of warm water will be advisable. Should laudanum administered in this way fails we must give it by the mouth in similar doses.

ARTICLE 9.

EXPECTORANTS

Are sometimes, though according to my observation rarely, necessary. Then a weak watery infusion of ipecac with enough paregoric or morphia to prevent its running off by the bowels—a mucilaginous mixture, with small doses of wine of ipecac or antimony—infusion of senega with liquorice, with or without a minute opiate, will be appropriate.

ARTICLE 10.

DIET AND DRINKS.

SECTION 1. *Diet.*—The appetite being usually destroyed, there is little need for nourishment, indeed it will frequently be difficult to induce the patient to take as much as is proper. Nothing but the most bland articles should be allowed, and that in small quantity. Three or four teacupsful of arrow root in the course of twenty-four hours are sufficient, or if the bowels are disposed to costiveness, the same quantity of gruel well made. It will frequently be necessary to change these articles, one for the other according to the state of the bowels. As the disease advances, and the strength of pulse begins to give way, this diet may be seasoned with brandy or wine and nutmeg. This bland diet should be continued until convalescence is fairly established. There is no need to fear that under this course "the patient will never get his strength," as is sometimes said by the patient or his friends. After amendment has continued some days, the appetite frequently becomes pretty good, sometimes ravenous. Great care now becomes necessary to prevent injury from excess or improper food. There will be great disposition to indulge in improper articles. Some increase in the quantity of the bland food before mentioned, may now be allowed for two or three days; then something a little more substantial, as mush and milk, the milk being boiled or not, according to the state of the bowels—gradually, very gradually, returning to the ordinary diet. We should remember that we have had to do with a very grave affection, one distinguishing feature of which has been derangement of the digestive apparatus. We should infer that this apparatus will remain in a weak, irritable state for a considerable time, and therefore nothing should

be presented to it, which by either quality or quantity would be in any danger of reproducing that irritation.

Sec. 2. *The drink* should be mucilaginous; but as most persons will become tired of one kind, when continued long, we find it necessary to change it occasionally. I do not know that there is a material difference between cold and warm drinks. Many physicians allow their patients to choose for themselves. For myself, when there is not a decided tendency to diarrhea, I have no choice; I permit any drink in moderation, which the patient may desire. Where there is a decided disposition to looseness, I prefer the drinks to be warm; or if there is no satisfying the patient with warm drinks, I allow water to be boiled and then cooled to the temperature of spring water. I am not sure that this is not a matter of fancy: my reason, however is this—I have thought that our limestone water was rather apt to aggravate irritable bowels. I am of opinion too, that I have seen cold water, ice water, bring on diarrhea: wherefore I prefer that the water be boiled when this state of the bowels is present. Sometimes I choose to administer carbonate of soda or carbonate of ammonia in the drink as a means of removing the irritable condition of the bowels, or of supplying a mild stimulus; when we choose to administer the ammonia, we should remember that if it is added to the water above blood heat, the salt is decomposed.

When the disease is marked by decided mildness of symptoms, it is well to abstain from medicines and depend upon diet and regimen exclusively. It is very important, however, and sometimes very difficult, to distinguish between these mild cases, and those in which the disease increases very gradually, but steadily. These last are frequently the very worst cases we have to contend with.

ARTICLE 11.

MANAGEMENT OF PATIENT.

So far is it from being true, that this disease is a sinecure to a physician—that he has nothing to do—that I know of no disease fraught with more solicitude and anxiety. It is true we do not think powerful doses of medicines called for, nor very active treatment proper; but the duration of the disease and the various points which, however important, appear to many to be small matters, yet

'Make up in number what they want in weight.'

We should therefore reflect that we have to manage a case of considerable duration; and that how mild soever it may be at the onset, we have no assurance that it will continue so; and we must make our arrangements accordingly. We should select a room for our patient which is large and airy; one from which air and light may be excluded at pleasure, and little exposed to noise. Little furniture may be required: a bed for the patient, and something upon which the nurse may occasionally recline, a couple of chairs, one for the nurse and one for the physician during his visits, a table upon which such articles as are needed, as medicine and drinks, may be placed, suitable implements for warming drinks, &c., are all that are necessary. In the winter, a carpet at least by the bedside, will be proper. Indeed I do not consider a carpet will be objectionable at any time. It will tend to prevent noise in the room. The bedstead should be of a medium height, between the ordinary and the truckle bedstead, as more convenient to a patient of considerably diminished muscular power.

One of the most important things to the patient, and

second only to the physician, is a suitable nurse. He should be kind, little disposed to talk, cheerful, decided in his temper, one who will have the control of the patient, and who will show to all who are disposed to meddle, that he *will have* the management of the case. As it will probably be necessary to administer injections repeatedly during the disease, he should understand the composition of them as given for the different intentions, and be qualified to administer them without pain or danger of irritation. He should have a light hand so as to enable him to dress blisters or do other necessary things, with the least annoyance to the patient. He should speak cheerfully and encouragingly to the patient; and although he should be civil to visiters, it would be well if he could give needless ones to understand that too much company is not desirable. Some persons visit the sick that they may soothe their uneasiness, or show a disposition to do kind offices for them either in the sick room or without; many more visit the sick, that they may meet some one there to talk to, or to lounge away their time. The first require no accommodation, the second deserve none, and the sooner they are dismissed the better.

The temperament and especially the wishes of the patient respecting the admission of company or not, should be consulted. Some persons when sick, dislike to be annoyed by the presence of company, to such the less company is admitted the better. Others again have their spirits considerably enlivened by the presence of their friends; in such cases occasional visits by persons for whom the patient has a fondness need not be forbidden. But more than one or two should never be admitted at the same time. All gloomy conversation ought to be strictly interdicted; also all allusion to persons who have lately died, or such as are dangerously sick. Although the conversation should be cheerful, it should not be frivolous or light.

Each evacuation, whether by vomiting or purging, should be removed immediately. The bed and body linen should be changed frequently; the face and hands washed; and the head combed daily; the mouth rinsed every few hours when there is an unpleasant taste in the mouth; and when there is much dryness of mouth, it should be moistened as often as is necessary with some warm slightly demulcent fluid. All noise should be excluded; and all light at all oppressive to the eyes; but air in pleasant weather should be admitted freely, yet in such way that no current shall fall upon the patient. The offensive odor from the excretions or from the body, may be masked by burning paper or sugar in the room when the weather forbids a sufficient admission of air to carry it off. In addition to sponging the body with water, in hot weather, the patient may be rendered more comfortable by wetting the floor repeatedly in the course of the day.

When the disease is very grave, every exertion possible should be avoided. Many times, when it would seem from the feelings of the patient, and indeed from his symptoms, that he might be able to walk about the room, rising to stool will produce a prostration from which some time will be required for recovery. In such cases he should not be permitted to rise. It will not do to encourage him to rise under the belief that the debility is fancied, rather than real.

All topics at all calculated to excite his mind must be excluded, and the mind kept perfectly quiet. Even when improvement has progressed considerably, exertion of both mind and body should be prevented as much as may be—divers persons have been supposed to be considerably advanced in amendment, who, upon transacting some business matters, have suddenly become worse, or even expired almost immediately.

CHAPTER VIII.

ARTICLE 1.

CASES.

To make my delineation of this disease as intelligible as possible I think proper to add a few cases of the disease—first, of some which terminated favorably, then of some that ended fatally.

Case 1st.—Ellen, colored, aged thirteen years, has been complaining for several days; took her bed 3d instant. Saw her on the 5th. Complains of universal muscular soreness and debility; considerable abdominal tenderness; headache; sore throat; tongue covered with white fur with red points appearing through it; pulse, lying, 100, sitting 120; tremulous motion of the lips; some diarrhea. ℞.—Calomel grs. x, pulv.; Dover, grs. v, *statim.*

6th. Four or five stools; less muscular soreness, but abdominal tenderness unabated; meteorism; skin soft, rather warm; pulse 90; throat still sore; tongue as yesterday. ℞.—Emp. episp. abdomini. Pil. Hydrarg. grs. xi, opii gr. i, hor. decub. Pediluvia.

7th.—Much as yesterday as to pulse, skin, abdomen, and tongue; has had several watery putrid stools. Blister did not draw well. ℞.—Reapply blister; repeat the pill at bed-time; gargle of capsicum.

8th.—Somewhat delirious last night; six stools of same character, one contained a lumbricus; feels better; throat not so sore; tongue disposed to cast off fur, but is left very red; meteorism and tenderness unabated; skin and pulse as yesterday. Blister drew well but does not dis-

charge well. ℞.—Injection of starch containing fifteen drops of laudanum after each stool.

9th.—Delirious last night, and occasional pain in the belly; six stools, somewhat more feculent, same fetor; two lumbrici; meteorism and tenderness of abdomen unabated; pulse, skin and tongue as before. ℞.—Remove the cuticle from the blister. Pil. Hydrarg. grs. v, pulv. Dover grs. ijss. Continue the injections. Arrow-root exclusively for diet; mucilage for drink.

10th.—Stools said to be less offensive, otherwise same as yesterday; meteorism and tenderness much less; tongue less red; skin warm and pleasant; pulse 82; less delirious last night; discharged a lumbricus from the throat; blister drying; took a pill of blue-mass and Dover's powder by mistake last night; was thought to be easier after it. ℞.—Reapply the blister; continue the arrow-root; and continue the injections provided the stools are more frequent than once in six hours.

12th.—Three stools in twenty-four hours; tenderness in iliac region; pulse 81; tongue reddish, smooth, and moist; some delirium last night. ℞.—Pil. Hydrarg. grs. v, to-night.

14th.—Pulse, asleep, 74, awake 78; tongue much as yesterday; skin soft; less delirium last night; one stool, less watery. Forgot to take the pill last night. ℞.—Pil. Hydrarg. statim; the blister to be kept discharging.

15th.—Pulse 78; tongue and skin as yesterday; three stools; still considerable tenderness in right iliac region; none elsewhere; no delirium; gums slightly sore; craves food. Continue the arrow-root and pediluvia. Continued to improve—discharged on 20th.

It is to be observed that the pulse on the 5th was 100; and on the 6th 90. This is to be explained, as I presume, by the fact that my first visit was made in the afternoon, and my subsequent ones in the forenoon. It is altogether probable that for several days the pulse in the afternoon

was as frequent as on the 5th, as there is usually an increase (especially in the early stage of the disease) of from five to fifteen strokes in the afternoon.

Case 2d.—Mrs. R. aged forty-one, was badly salivated ten years ago. Since that time has been in rather delicate health. Was considerably indisposed on the 27th of November, 1845, which increasing, I saw her on the 30th. Great suffering from pain in the head and back; right cheek flushed; respiration somewhat quickened and irregular; expiration rather sudden; no pain of chest; pulse 100; tongue slightly red and moist; skin rather dry; tinnitus aurium; slight nausea; some tenderness on pressing the epigastrium and right iliac region; abdomen scarcely distended. Took this morning a teaspoonful of table salt, which has moved the bowels three times, the stools liquid and of a putrid odor. ℞.—Calomel, Dover's powder a. grs. x, to be followed by small doses of sulph. magnesia at intervals during the night, provided there is any considerable fever; if not, and the calomel does not purge by 9 o'clock to-morrow, sulph. magn. ℥ii; laud. and alcohol, ammon : in equal quantities, to be rubbed upon the back; warm bathing to forehead.

Dec. 1, 1 P. M.—Pulse 82; tongue slightly red; skin as yesterday; pain in back and head much diminished; slight pain in neck and breast. Medicine has operated but once, thin and fetid. ℞.—Infus. senna to assist the medicine.

2d. 1 P. M.—Medicine operated five times, thin, fetid; tinnitus aurium considerable; little pain in either back or head; pulse 72; tongue as yesterday; soreness of abdomen. ℞.—Mucilage with super. carb. soda.

3d. 3 P. M.—Pulse 78; tongue and skin as before; pain in head, giddiness, tinnitus aurium; muscular debility is and has been very great; epistaxis; no pain in neck or chest; sense of fulness and tenderness of abdomen; one stool, fetid. ℞.—Pil. Hydrarg. pulv. Dover a. grs. ii, sexta. quad. hora.; mucilage for drink.

4th. 3 P. M.—No stool; pulse 75; respiration natural; skin and tongue as yesterday; neck and chest easy; abdomen scarcely distended but somewhat tender; pain in the top of the head; no tinnitus aurium; epistaxis; feet disposed to be cool. ℞.—Infus. senna; warm fomentations to head; mucilage for drink; keep the feet warm.

5th—Much as yesterday except head easy.

6th. 2 P. M.—One stool consistent, mixed with mucous, fetid; some pain in the head; no tinnitus aurium; considerable uneasiness in the back; pain in the bowels; pulse 80; respiration 20; feet more disposed to coldness ℞.—Pil. Hydrarg. grs. iiss; tart. ant. grs. 1-10, to be taken immediately, and repeated at intervals of four hours; a large poultice to abdomen; warm applications to forehead. At 4 o'clock the pill had vomited and moved the bowels, discharge thin, cider colored, fetid; pain in head and abdomen abated. Discontinue the pills; and rub the back with laudanum and ammonia.

7th. 12 M.—Easy and comfortable; one stool, thin, fetid; pulse 68; respiration 17, regular; tongue less red. ℞.—Mucilage and gruel.

8th. 12 M.—Easy and comfortable; one stool; pulse 76, (perhaps occasioned by her having just taken a little nourishment;) respiration and countenance indicative of comfort; some appetite.

In this case much benefit seemed to follow the vomiting occasioned by the pill of blue-mass and tartar on the 6th. This is the case in which memory was lost during my whole attendance.

Case 3. James Tucker, aged 25, here three weeks, called at my office on the 5th of June, 1847, complaining of great muscular weakness; countenance pallid; pain in the head and back; bowels regular; no appetite; tongue slightly furred white. ℞.—Emetic of ipecac., which vomited him well, but did not act on the bowels.

8th.—Countenance more expressive of indisposition,

still very weak; bowels costive; otherwise much as before. ℞.—Calomel. Pil. Hydrarg. aa. grs. x, opii grs. i.

9th.—Pulse 90; skin soft; little tenderness of abdomen; respiration natural; tongue, countenance as yesterday; medicine has not operated. ℞.—Sulph. magnes. ℥ii.

10th.—Pulse, morning, 98, evening 104; skin perspiring, warm; tongue smooth, red, and small; tenderness at epigastrium and right iliac-fossa, indeed, of right side of abdomen generally; six or eight stools, fetid, watery; feeling "right smart." ℞.—Suppository of opium after each liquid stool, until they are reduced to one in six hours. Arrow-root for diet, mucilage for drink. ℞.—At night pil. Hydrarg. grs. xv, ip. opii aa. gr i.

11th.—But one stool; skin and respiration natural; pulse 84; tongue as yesterday; no nausea; pain in abdomen; slept well.

12th.—Pulse 96; skin and respiration natural; head slightly uneasy; tongue unchanged; throat sore and red; one stool; abdomen tender and distended. ℞.—Seidlitz powder to be taken at 11 A. M.; gargle of capsicum, eve. Medicine operated five or six times, thin, yellow, fetid; pulse 90, skin natural temperature. ℞.—Suppository of opium after each watery stool.

13th—Tongue red, aphthous; throat thought to be less sore; two stools, yellow, fetid; abdomen not distended, but slightly tender; pulse 96; skin natural; slight numbness of head. ℞.—Pil. Hydrarg. grs. viii, pulv. Dover grs. v.

14th.—Much as yesterday, no medicine.

15th.—Five or six discharges from bowels, watery, fetid, yellow; tongue broader, still red; no tympanites; some tenderness of abdomen; skin less warm; pulse 100. ℞.—Suppository of opium.

16th.—No stool since the suppository; pulse 95; tongue less red; abdomen easy.

18th.—Decided improvement; pulse 87; tongue be-

coming more natural; no stool; no tenderness of abdomen, some appetite. ℞.—Injection of warm water; no medicine. Continued to improve.

Case 4. Sylla, aged forty-five, has been complaining for some time of capricious appetite and general indisposition. July 22, 1841, took an emetic of ipecac, which discharged some phlegm, but little bile.

26th.—Some chilliness; slight pain in the back, neck, and head; tongue whitish, broad, considerable muscular debility; skin moderately warm; pulse frequent; not full. ℞.—Calomel ℈i.

27th.—Medicine has operated several times; stools thin and watery, slightly bilious. But little if any change in general appearance. ℞.—Calomel ℈ii.

28th.—Medicine has operated very much as before; skin not hot but dry; giddiness of head; sore throat upon swallowing; pulse 110 small; tongue disposed to be clammy. ℞.—Calomel ʒi.

29th.—Medicine operates frequently, stools small, watery, fetid; muscular debility great; skin dry, not hot; tongue as yesterday; does not complain of nausea; giddiness, and tinnitus aurium. No medicine.

30th.—Much as yesterday, except that the pulse is becoming quicker and weaker; bowels frequently moved, stools of same color; feet cool.

31st.—Tongue very white; skin dry and warm; little uneasiness upon pressing the abdomen; great muscular debility; still some pain in the back of the neck and singing in the ears; pulse 120; weak; diarrhea continues. ℞.—Emp. episp. to abdomen. Pil. Hydrarg. grs. v, thrice a day; enema of starch and laudanum, gtt. 20, after each liquid stool. Mucilage for drink, arrow root for diet.

August 2.—Tongue is casting its fur; red and clammy, skin very much as before; stools somewhat less frequent, but of the same character; some tenderness upon pres-

sing the abdomen, but no tympanites perceptible. ℞.—Pil. Hydrarg. grs. v, night and morning.

4th.—Tongue has cast off a good deal of the fur, but is less red, and very much disposed to be dry; roaring in the ears, and soreness of throat unabated; bowels less disposed to diarrhea; had two stools, which from description, seem to have been consistent bilious ones. Is considerably stupid, which is attributed to the use of laudanum last night. She had a serous stool for which injection of fifteen drops laudanum was given and immediately returned. Thirty were given and retained. No meteorism. Somewhat deaf. ℞.—Pil. Hydrarg., night and morning.

5th.—Very much as yesterday, except that she has had no stool. ℞.—Injection of warm water to move the bowels, which brought two watery yellowish motions. ℞.—Pil. Hydrarg. grs. v, at night.

7th.—Pulse 112; countenance brighter, but delirious at night; tinnitus aurium continues; and soreness of throat when she swallows; bowels continue loose, six or eight stools daily, watery, yellow, and fetid. Skin nearly of natural temperature on the body, but feet cool; tongue dry. ℞.—Continue the medicine. Add a spoonful of wine to each cup of arrow-root. Pediluvia and warm brick or sinapisms to feet as may be necessary.

10th.—Seems to be slightly improving; countenance better; pulse 110, but weak; skin of natural temperature on body, but dry, cool feet; tongue still dry; bowels still loose, will not retain the injection of starch and laudanum. Talks less incoherently. ℞.—Suppository of opium in lieu of the injection. Continue the arrow-root with wine; mucilage for drink. A blue pill every other night.

15th.—Remains very much the same, except that the bowels are less disposed to diarrhea—indeed it was deemed advisable to-day to give an enema to move the

bowels, which caused excruciating pain. Some tenderness of abdomen; for the last two days gurgling can be produced by agitating the right iliac region; pulse ranging from 112 to 120 small. Skin not particularly dry, and of good temperature, but feet cool; does not complain of head; tongue still dry, and covered with a granular coat, like half dried mortar; throat said to be less sore. Continue medicines and diet. If it should be necessary to move the bowels, a small quantity of ol. Ricini. Blisters have been kept discharging on the abdomen.

19th. She remained very much as last reported the next day, except that she seemed to be touched with mercury, breath slightly tainted, and the parotid gland began to swell; in consequence of which the blue pill was discontinued. It has been necessary to give one small dose of oil (f℥ii) to move the bowels. By some strange mistake, or else to try a project of his own, her husband introduced a candle up the rectum. When it was taken out, it was found smeared with blood. There was some difficulty of swallowing, though she complained of no soreness of throat. Of late, has had little disposition to talk, but appears rational. Her strength was thought to have improved, and yesterday morning she sat up on the bedside and washed her face and hands; but when I arrived, at 11 o'clock, she seemed to be dying. Her extremities were cold, and her body covered with a clammy perspiration; respiration short, and pulse scarcely perceptible. Friction to the jaws had appeared to diminish the swelling of the parotid glands. By stimulants internally and sinapisms externally, on yesterday, she rallied considerably, but sank and died to-day at 12 o'clock.

This was among the first lot of cases which I recognised as typhoid fever. In the commencement of the case, I acted upon my experience in bilious fevers, and increased the dose of calomel to procure consistent bilious stools; seeing, at the same time, that the form of fever

was materially different from ordinary bilious fever. Whether the administration of these large doses of calomel exerted any decided influence of injurious tendency, I cannot with any assurance say. One thing is true: the pulse became rapid much quicker than it usually does. Though I have seen it undergo that change still more rapidly, when it could not be attributed to calomel, or any other mode or treatment. It satisfied me that large doses of calomel were not *the* remedy in this kind of a case. This case, exhibits, too, the want of correspondence between mercurializing and improvement, as the patient continued to grow worse during its inception and progress. Appearances on dissection are given already.

Case 5. Joel Holden, aged 27, of low stature, but very corpulent, has been complaining four days of general indisposition; some general chilliness and feverishness; had taken three doses of extract of white walnut, which had procured "consistent dark bilious stools," as represented by him; also, an emetic of ipecac. At present (May 9th, 1847), pain in head and back, face flushed; pulse 88; tongue furred, whitish, broad, indented by teeth; some diarrhea; no tympanites or tenderness of abdomen; considerable restlessness and anxiety; temperature of body increased; skin not harsh; respiration natural, muscular weakness. ℞. Calomel, gr. xii., pulv. Dover, gr. x. M.

10th. Very much as yesterday; very restless, anxious, and of evil foreboding; skin warm, but not harsh. ℞. Calomel, pil; hydrarg. a gr. v.; ipecac, gr. i; op. gr. ¼.

11th. Pulse 90, rather full; respiration natural, except occasional sighing; tongue rather more white, broad; constant screatus; very uncomfortable sensations referred to the epigastrium; four stools, thin and watery; no tympanites or marked tenderness; heat of surface somewhat increased, skin dry; pain in the back. ℞. spts. nitre ℥i, ipecac, gr. i, every two hours. Back to be rubbed with laudanum and ammonia. If bowels become troublesome,

enema of starch, with 20 drops of laudanum after each stool, until reduced to one every six hours.

12th. Less pain in back; four stools, bright yellow, of rather more consistence—of thin molasses. The ipecac vomited him; threw up phlegm, mixed with a little bile; skin still warm, face flushed; rather less distress at epigastrium, but still restless; tongue continues whitish, something more red at the tip and sides; no tenderness or meteorism. ℞.—Calomel, pil hydrarg., a gr. x, morphia gr. ¼.

13th. Pulse 94, skin warm over whole surface; face flushed, sometimes one cheek, sometimes both; tongue very much the same, screatus continues; complains of some soreness of throat; upon examination, it was found somewhat red; still much uneasiness of epigastrium; three stools, same character; slight tympanites, urine of good color and ordinary quantity. ℞.—Ipecac, gr. i, every hour during the febrile excitement during the evening. Mucilage with carb. soda for drink; a blister to epigastrium to-night, sponging body with cold water during the fever; early to-morrow morning, pil. hydrarg., gr. x, quinine gr. iv, sulph. morph., gr. ⅛; gargle of capsicum.

14th. Pulse 96, skin warm; perspired freely yesterday; tongue very much as before, perhaps a shade more red; sore throat, screatus continues; less oppression at epigastrium, in consequence of which the blister was not applied as directed; three stools, still deep yellow, and same consistence; immense discharge of flatus during defecation; no tenderness of abdomen, but still slight meteorism; some pain in head, and thought to have been somewhat delirious last night; respiration somewhat irregular; sighing. ℞.—Repeat the blue mass and quinine tomorrow morning; blister to back of neck to-night. Continue the sponging whilst the heat of body is considerable.

15th. Blister drew well, but the head is very little re-

lieved; two stools, same character; considerable discharge of flatus; black powder in bottom of vessel; tongue much the same; throat more sore, somewhat ulcerated; screatus continues; some nausea last night; skin still warm; lips remain plump, abdomen as yesterday; pulse 96. ℞.—Gargle of nitrate potash, brandy and honey. Continue drinks and sponging; no medicine. Cut off the hair.

17th. Delirium is increasing, notwithstanding the blister discharges freely; face continues flushed, lips plump, tongue more red, throat no better; respiration irregular, abdomen as last stated; two stools, much flatus; countenance becoming more anxious; pulse 100. ℞.—Pill hydrarg., pulv. Dover a gr. iii, sexta quaque hora. Carb. ammonia, gr. ii, secunda quaq. hora in mucillage.

19th. Pulse 105; [it is generally, of late, from 10 to 15 more frequent at night than at my visit,] skin still above the natural temperature. On the thorax is an eruption, which seems an effort at the rose-colored spots; at least there are some fifteen or twenty tawny spots, of about the size, slightly elevated. Tongue broad, brown, red at tip and edges; complains less of throat, though it is still ulcerated; screatus continues; tympanites, but no tenderness; two stools, unchanged, flatus excessive; urine of good color; more delirious, still restless; on 18th perspired freely. Of late emaciation has progressed considerably; and the countenance is becoming sharpened. ℞.—Continue the medicines, emp. episp. to epigastrium.

21st. In every respect worse; countenance more sharpened; but the lips have retained their plumpness throughout his illness; tongue more brown, but moist and broad, red at edges and tip; two stools daily; skin warm; no change in the spots; delirious night and day; pulse 130.

23rd. Becoming comatose; eyes suffused; tongue still moist but dark, meteorism; has had no stool for sixty

hours; pulse too quick and tremulous to be counted with certainty. I left him with the belief that he would not live more than twelve or eighteen hours; but he did live between two and three days, sinking very gradually, without having another motion from his bowels.

In this case, medicines did not appear to exert any influence whatever. The fecal discharges were all the time of a rather bright yellow color, differing little in color or consistence from healthy bile; and the diarrhea was at no time very troublesome. The febrifuges appeared to mitigate the fever at the time of administration, but next day it was at least as high as ever. Sponging was very grateful, but otherwise seemed of no use. Quinine had no effect in postponing or mitigating the afternoon exacerbation. Perhaps if it had been doubled or trebled it might have done better. Blisters drew well, and discharged well, but seemed to produce no effect. Restlessness was very great, yet almost every night he would get some comfortable sleep, either in the early or latter part of the nignt.

Art. II.—*Case of Excision of the Uterus.* By Paul F. Eve, M. D., Prof. of Surgery in Med. Coll. of Georgia. With Remarks, by C. D. Meigs, M. D., Prof. of Obstetrics and Diseases of Women and Children in Jefferson Med. Coll. of Philadelphia.

To the Editor: When Prof. Eve, of Augusta, Ga., passed through Philadelphia, on his return from the meeting of the Association at Cincinnati, he gave me a pathological specimen, which is now in my museum. This specimen consists of the uterus of a woman of color, which was removed by Professor Eve, in the hope that, by such a desperate operation, he might be able to rescue the patient from the imminent death which seemed by no other means to be avoided. The uterus, which he removed in

the manner described in his letter, has been very much changed in its external form by the ravages of cauliflower excrescence.

I do not know that any American surgeon has heretofore extirpated the entire uterus *in situ*—an operation that is said to have been first performed by M. Sauter, of Constance, in 1822.

M. Colombat de l'Isèru informs us that the operation has been executed by Sauter, by Hoelscher, twice by Siebold, and thrice by Langenbeck; four times by Blundell; once by Banner; once by M. Lizars; twice by Récamier; once by Dubled; twice by Reux, and once by M. Delpech; while this operation by Prof. Eve adds one integer to the whole number, which amounts to twenty operations, in all of which the result was contrary to the hopes of surgeons.

M. Colombat expresses the opinion that operations for the removal of the womb *in situ* ought not to be in future performed, in consequence of the disastrous summing up of the statistical records. He does not apply his objections to the cases of incurable inversion of the organ.

There are too many examples of recovery after extirpation of the inverted organ to leave any doubt on the mind as to the hopefulness of such an operation. Still, as I have firm confidence in the opinions I have published in other places, as to the power of spontaneous cure of inversio uteri, I should hesitate long before resorting to the measure of extirpation. In my friend's operation, there is cause to congratulate him upon the skill and resolution manifested by him, and upon the very hopeful success up to a certain point.

The following extract, from Prof. Eve's communications, will show that, but for the recommencement of the original heterologue development in the vagina, the patient had, in the most remarkable manner, been rescued from death.

I send you herewith an extract of a letter from Prof. P. F. Eve; also, a letter from Dr. J. A. Eve; and lastly, extracts from two letters from the surgeon.

Very respectfully, your obedient servant,

CH. D. MEIGS.

"On the 16th of April last, I removed the entire womb from a patient, who has recovered. The operation was performed at my surgical infirmary, in which I was assisted by my cousin, Dr. J. A. Eve, Professor of Obstetrics and Diseases of Women and Infants, and by Drs. Murray, H. Campbell, Longstreet, and Montgomery, and in the presence of several others connected with the profession.

"The patient is a negro woman, twenty-eight years of age; has been married, but never conceived, as she believes. For more than three years, she has been laboring under uterine affection; at least, she has been annoyed for about that length of time by a vaginal discharge. The history of diseases among our negro population is generally very imperfect and unsatisfactory; and this is especially true as regards uterine derangements. All we can obtain, in the present case, is, that the patient experienced great irregularity in menstruation, and had frequent hemorrhages from the vagina.

"Yours, &c., P. F. EVE."

We now refer to Dr. J. A. Eve's statement of the case, as he observed it before she arrived at the Infirmary, in Augusta.

AUGUSTA, April 24, 1850.

DR. P. F. EVE—Early on the morning of the 10th instant, I was called to visit Mary, the patient whose womb you extirpated on the 16th, in consultation with Drs. Murray and Cook, some eleven or twelve miles from the city.

Under the influence of morphine, which had been given

before my arrival, the patient had become easy. On examination,I found a tumor of considerable size in the hypogastrium, and the whole pelvis, to the outlet, filled and blocked up with a lobulated, convoluted, incomprehensible mass, from which issued a copious and horribly fetid discharge.

As this was unquestionably carcinoma, cauliflower excrescence, encephaloid tumor, or some malignant growth, the patient's certain doom was death, after a few months, or at most a year, of miserable existence worse than death, unless rescued by surgery, in the performance of a heroic operation which would involve the removal of a portion or the whole of the uterus.

If such an operation would ever be indicated or warranted, the age, (twenty-eight years), the vigor of constitution, and the comparatively unimpaired health of the patient, made it proper in this case.

In consultation, I suggested to Drs. Murray and Cook that, as neither of us could take charge of, or do justice to her case, so far from our respective residences, she should be removed, as soon as practicable, to your infirmary, where she would enjoy every advantage and benefit that favorable circumstances, as well as science and art, could afford her case; and that we should all meet and confer with you after her removal to this place; to which suggestions these gentlemen cordially acceded.

I know nothing of the previous history of this case, except what has been related to us by Dr. Murray. In consultation, all the physicians present concurred in opinion with you, that the operation was one of extreme danger, and the probabilities were as many, perhaps, as a hundred to one against its success.

Before the operation, Dr. Murray and myself visited the patient, explained to her its great danger, and the very great probability that she might not survive it; telling her that, although it afforded but little hope, it was the

only hope of delivery from suffering and death. We told her, further, that it rested entirely with herself to determine whether or not she would submit to the operation. Without persuasion or influence of any kind, she determined promptly and unhesitatingly to submit to the operation, terrific as it was represented to be. She is now doing well, and in all probability will return home next week.

Your sincere friend,

J. A. EVE.

Operation.—The bowels having been previously emptied, a large quantity of urine was drawn off by the catheter, which diminished considerably the hypogastric tumor, and proved the bladder to have been generally distended, as there was no urgency to micturition—in fact, the patient was unconscious of distension. About two pints were thus evacuated. Chloroform was now inhaled to its full anæsthetic effects, when the vaginal tumor was seized by various forceps, but which, after large tubercular masses were torn off, was finally brought down to the os externum by the left hand. Finding it impossible to remove the firm resisting body now presented to view, it was carefully excised from above downwards, or in an antero-posterior direction, by the knife—I confess, with some suspicions at the time, it might be the uterus. One artery (now believed to be the left uterine), throwing out blood quite vigorously, was seized, and an animal ligature cast around it. A solution of sulphate of zinc was applied to restrain further hemorrhage, which had been considerable.

There was no protrusion of the bowels, nor was the case followed by any very severe symptoms. A most rigid confinement to the horizontal position was strictly enforced for about ten days, with absolute diet, &c., &c. The bladder, it is presumed, filling up again, pushed the intestines backwards, while the opening made into the pe-

ritoneum was closed by agglutination and subsequent adhesion. The rectum was evacuated on the fourth day after the operation by warm water, and the bowels were moved freely by oil on the fifth.

In the mass removed, the uterus is readily recognized, with its Fallopian tubes, broad and round ligaments; but the os tincæ is involved in the encephaloid degeneration. The tumor in the vagina was about the size of a child's head at full term. No one, it is believed, who has examined it, has entertained the least doubt but that the entire womb was removed, and this includes, besides the gentlemen who witnessed the operation, Dr. R. D. Mussey, Professor of Surgery in the Medical College of Ohio, and Chairman of the Committee on Surgery for the past year in the American Medical Association; and my preceptor, Dr. C. D. Meigs, the distinguished Professor of Obstetrics, &c., &c., in the Jefferson Medical College, with whom the uterus has been deposited, and who has kindly insisted upon presenting the case to the profession in his his own way.

During my absence at the meeting of the Medical Association in Cincinnati, the case was left under the care of my relative and assistant, Dr. A. P. Longstreet. The patient returned home on the 3rd of May, visited Augusta again on the 20th, to inquire why she had had no hemorrhage (menstruation) since the operation; and, in answer to a letter, Dr. Murray writes, on the 10th of June, that he saw her "up and about" the day before, and promised to bring her, in a few days, to my office.

Fifteenth of June, two months after the operation, the patient, Mary, has called, after riding eleven miles on a loaded lumber wagon. She is much improved in flesh and appearance, and has enjoyed good health. She says there has been a slight show of blood but once since the operation, and only a moderate discharge at times of colorless fluid. But I regret to add, we have most unmis-

takable evidence, both ocular and by touch, of a rapid reproduction of the encephaloid disease, which in all probability must sooner or later destroy life.

Extract of a letter, dated—

AUGUSTA, July 29th, 1840.

My Dear Doctor—I write to say Mary, my *non-uterine patient, is dead.* She died on the 22d of July, having lived three months and a week after the operation. She became œdematous, (ascites, also), but had no hemorrhage, neither protrusion of the disease from the os externum. I regret no post-mortem was made by the physician in attendance, and I only learned her decease incidentally at the time. PAUL F. EVE.

DR. C. D. MEIGS. [*Am. Jour. Med. Sci.*

REVIEWS.

ART. III.—*A Systematic Treatise, Historical, Etiological, and Practical, on the Principal Diseases of the Interior Valley of North America, as they appear in the Caucasian, African, Indian, and Esquimaux varieties of its Population.* By DANIEL DRAKE, M. D. Cincinnati: Winthrop B. Smith & Co. Philadelphia: Grigg, Elliott & Co. New York: Mason & Law. 1850.

(CONCLUDED.)

The controlling cause of climate is connected with the sun, and all its phenomena would cease if the earth were removed beyond the influence of that luminary. But these phenomena vary unceasingly with the varying character of the earth's surface, as modified by mountains and valleys, by forests and naked plains, by oceans, rivers, swamps and lakes, and by the ever-changing atmosphere which invests it. Unequal degrees of heat are manifested in regions having the same latitude, but differing in elevation, or as they are open or covered with forests, or as they present extended tracts of land, or wide surfaces of lake or ocean to the sun. The solid crust of the earth is heated much more rapidly, and cooled also sooner than seas or deep lakes; vapors are sent up by oceans into the air, and carried far into continents, to liberate caloric, as they are again condensed, and then to absorb the heat as they return to the aerial state. In climates where these changes are ceaselessly in progress, electrical phenomena

are developed; calms and hurricanes follow each other in quick succession; and by the combined agency of heat and moisture, the decomposition of organic matter is promoted, and the atmosphere is loaded with exhalations from the earth.

The climate of every country is subjected to peculiar influences. Let us look, for a moment, at some of those pointed out by our author, as modifying the climate of the Interior Valley.

In the first place, the axis of the Valley lies nearly in the meridian, and stretches from the torrid to the frigid zone, presenting all the modifications which can result from the different effects of the sun in the different latitudes. Again, there is a remarkable uniformity in the elevation of its surface above the sea, in a broad zone, running nearly through its centre from south to north; at the same time it presents this interesting feature, that its southern half slopes towards the sun, while its northern extremity declines at an equal degree from it—a feature by which the heat of the southern slope is augmented, and that of the northern diminished. In the third place, the proportion of watery surface varies widely in different parts of the valley. The southern Basin is washed by the Gulf and the lower Mississippi, and except those no other portions of it are either constantly or occasionally covered with water. The country east of the Mississippi is without lakes or extensive morasses, and the rains which fall upon it are collected into running streams. The vast regions to the west, as far as the Rocky Mountains, form an inclined plane, with no considerable lakes or swamps, and only a few rivers. Over such a country, with a bibulous soil, the air is comparatively dry. In all respects, the Eastern Basin is the reverse of this. It is essentially lacustrine, having, besides the large lakes, from Superior to Ontario, countless smaller ones, many of which are bordered by extensive swamps, and which

must load the air with aqueous vapor. And still more paludal is the character of the Northern Basin, which, consequently, must exhale a vast quantity of vapor during the warm season. A signal change of climate would be the result if the waters of the latter basins could be transformed to that of the South.

We have to enumerate still another cause modifying the climate of the Valley—the forests which overspread some portions of it, and the prairies which extend over others. Along the Gulf of Mexico, and in all the regions east of the Mississippi, including the Ohio basin, and quite to the summits of the Alleghany Mountains, dense and lofty forests prevail where they have not been removed by the hand of man. Prairies divide the surface with the forests west of the Ohio basin to the Mississippi, and predominate in large portions of Illinois and Wisconsin. The southern basin is thus divided between woodland and prairies. The eastern basin is generally wooded; the extent of forest is very much less in the two Northern basins. The woodlands of the Valley are found chiefly towards its eastern side, from the Gulf of Mexico to Hudson Bay. As remarked by Dr. Drake—

"These forests retard the heating of the earth's surface in summer, by intercepting the rays of the sun; and at night they diminish the radiation of heat from the same surface; and the radiation takes place from the canopy of leaves. In both summer and winter, they diminish the velocity of the winds. On the treeless plains, the power of the sun is greater, the nocturnal radiation from the ground greater, and at all times the velocity of the winds (the forces which generate them being the same) is more rapid. A necessary effect of settlement and cultivation, is the destruction of the forest; and thus, every year, the wooded is making an approach in area to the woodless part of the Valley."

Prominent among the causes which influence the climate of the great Valley, must be reckoned the moun-

tains by which it is bound. On one side stretches the Appalachian chain, from Alabama to the region north of the Gulf of St. Lawrence, rising from two to five thousand feet above the level of the sea, deflecting certain winds from their course, condensing the moisture which rises from the warm Atlantic, and reducing the temperature of the moving column of air as it passes over them. On the other, from the equatorial to the polar seas, throughout its entire length, it is shut out from the effects of the Pacific by another mountain range, which exerts upon its climate an influence far greater than the mountains in the opposite direction.

Finally—to the south of the Valley lies the Gulf of Mexico, and on the north it is subtended by Hudson Bay and the Polar Sea; an immense basin of tropical water thus sending up its volumes of hot and humid air, at one extremity, while at the other is found the "pole of cold"—the region on our continent in which the heat of the year attains its minimum. It is worthy of observation, as remarked by Dr. Drake, "that all the southern and southwestern winds which can reach this latter spot, must have descended from or crossed the Rocky Mountains, in latitudes where their crests are covered or embossed with perpetual snow." When the wind blows from this quarter, it is necessarily cold; and our Valley being placed thus "between one of the hottest and one of the coldest seas on the globe, must forever be subject to sudden vicissitudes and wide extremes of temperature."

One of the laws disclosed by the statistics which Dr. Drake has collected with great labor, is, "that as we advance from south to north, the difference between the coldest and hottest years increases." It is well known that in equatorial regions the difference in temperature between one year and another, at the same place, is scarcely appreciable. At Key West the range is one degree and a half; at Nashville it is three and a

half; at Louisville it is five; at Cincinnati it is five and a half; and at Montreal it is nearly seven and a half. The variation is shown to be less in the neighborhood of the great Lakes, which manifestly exert a restraining influence upon the annual range.

The observations are still too few to enable us to delineate very satisfactorily the curves of equal mean temperature which traverse the Valley; but from the data ascertained, it may be stated, "that the isothermal lines are nearly parallel to those of one side of a compressed ellipsis or long oval, with their eastern curved extremities much shorter than their western." In crossing the trough of the Mississippi, they attain their greatest altitude. The curve that crosses the Cordilleras, in latitude 19°, passes near Natchez, 12° further north, and is bent towards the south again as it ascends the Appalachian Mountains. This configuration is true of that portion of the Valley only which is bounded by those mountains; the curves of other regions, north and south, are different, but we have not space to follow our author into further detail on this curious subject.

Dr. Drake, as the result of all the observations he has been able to compare, has arrived at the conclusion, that no change of mean temperature has resulted from the settlement of the Valley. We have already adverted to the popular belief, sanctioned by the authority of Jefferson and Volney, that there is a mildness about its climate greater than belongs to regions in the same latitude east of the Alleghany Mountains, and stated that the opinion is erroneous, as Dr. Drake showed very satisfactorily in his "Picture of Cincinnati," thirty-five years ago. So far from a softer climate, there is reason to believe that the extremes of heat and cold are greater on this than on the eastern side of those mountains. The range of the various places in the Valley, where registers have been kept, is, with a few exceptions, above 100°,

and at one station is as great as 140°. Between extreme points, as, for example, Fort Gibson and Fort Reliance, one in the thirty-sixth parallel and the other in the sixty-third, the difference is as great as 186°. These are, perhaps, the greatest extremes noted within a space of twenty seven degrees.

Under the head of "Distribution of the Mean Annual Temperature through the Seasons," Dr. Drake presents many interesting statistics, of which we can give only the following brief summary:

"When we take the means of the nine groups of stations, we find that through the entire Valley, from the tropical to the polar regions, the temperature of Spring is 10°.22 below the mean temperature of the year; that of Autumn, 1°.58 above; and that of Spring and Autumn united, 0°.17 above. This small excess does not oppose the conclusion that, taking the Valley as a whole, the mean temperature of Spring and Autumn combined, is identical with the mean heat of the year. It is interesting to observe that, until we come to the last group of the stations in the extreme North, the average heat of Spring and Autumn, in none of the groups, varies a degree from the annual temperature."

He next shows the distribution of temperature through the months, and then compares the temperature of "pairs of months"—as January and July, February and August, and so on—and brings out the curious result—

"That, of the six pairs of months, but one varies from the mean annual temperature to the extent of a degree; they show, also, that the mean temperature of February and August approaches nearest to the mean temperature of the year; and that the average of June and December departs widest from it. The former are the last winter and the last summer months; the latter are the first summer and the first winter months. We likewise see that four of the pairs rise above mean annual heat, two fall below it. Those which present an excess are the four pairs which succeed to the solstices; those which offer a deficiency, are the pairs which precede, and the pair

which include, the solstices; the latter showing the greater deficiency of the two—10°.18."

A want of space compels us to pass without notice over many subjects relating to climate; we can only stop to select a few facts bearing upon its "aqueous meteors." Dr. Drake gives a table of observations made at thirty-two stations, upon which he remarks:

"The first thing which strikes the eye, when it rests on the foregoing table, is the unequal amount of rain, or rain and snow, in the different regions of the Valley. The smallness of the amount at Key West, 30.783 inches, will perhaps excite astonishment in those who are accustomed to think, that as we go South the rains become more copious. We must recollect that Key West is a small island, which scarcely rises above the level of the Gulf, and that the nearest land, Cape Florida, is almost as depressed. We must also call to mind the prevalence of easterly winds at that place, which, although humid, find no elevated object, and but few cold currents, over the south-eastern surface of the Gulf, to condense their vapor into rain. They are, in fact, there augmented in temperature, and become still more highly charged with vapor, than before their arrival on the Gulf. In this condition, they arise, as from a great evaporating basin, and wheel toward the pole. When they reach the northern coasts of the Gulf, about the thirtieth parallel, they begin to traverse a cooler region; the inequalities of temperature between land and water begin to exert an influence upon them; and they are, frequently, met by Northern winds. Under these agencies, their vapor is condensed into copious rains. At Mobile, the amount which falls is more than double that of Key West; and the mean of all the stations around the northern arc of the Gulf, 59.190 inches, is to that of Key West, as that number is to 30.783. This, in fact, is *the* rainy zone of the Interior Valley; not only rising eighty-two per cent upon Key West, but twenty-four per cent over the average of the fourth group, the next highest to the one we are now considering. Much of the rain in this maritime zone falls in showers; which are unequal in number and copiousness; at places so near each other, that we should expect

uniformity. Thus, the difference of Mobile and New Orleans, by simultaneous observations, in 1841-'42, was no less than nineteen inches."

The quantity of rain that falls on the East of the Mississippi exceeds very much that which falls to the West of that river. At Nashville and Huntsville, for example, the precipitation is equal to 54 and 55 inches, respectively, per annum, while at Fort Gibson and Fort Smith, in nearly the same latitude, it is only 30 and 35 inches. What causes this marked difference? We give the cause in the words of our author:

"It cannot be doubted that nearly all the rain which falls in the interior of our Valley, is brought from the Gulf of Mexico by our southerly winds. When they reach the middle latitudes, a cooler atmosphere condenses a portion of their vapor into rain or snow; and they often meet with nortn-east currents, which greatly increase the condensation. Having such a source, the rains will be most copious over those places which lie most directly in the track of the Gulf winds; which are the stations between the Mississippi and the Appalachian Mountains, in the States of Alabama, Mississippi, Tennessee, Kentucky, Indiana and Ohio. When we cross the Mississippi, and advance into the West, every mile carries us further from that humid, south-west wind, which has traversed, or started from the surface of the Gulf of Mexico; and, of course, the quantity of rain suffers diminution. We enter a region which becomes dryer and dryer, the further it is penetrated; and beyond the hundred and second meridian, as Doctor Gregg has informed me, is scarcely ever refreshed by morning and evening dews. The rivers of that side of the Interior Valley testify to the deficiency of rain, for, in proportion to the extent of surface which they drain, they are fewer, and less abundant in water, those on the eastern side of the Mississippi; although most of them have the advantage of originating in the Rocky Mountains. Moreover, the superficial parts of that region are more sandy and bibulous than those of the eastern side of the Mississippi, and, therefore, a greater proportion of the water which falls, sinks into the earth.

Thus, both geographical position and geological constitution, contribute to an aridity which must continue, until the state of the surface is changed, or the Gulf of Mexico is removed further West, or the Rocky Mountains sunk so low as to admit the winds of the Pacific Ocean."

This must suffice for the climatic part of this work, although there remain several topics which it would be interesting to discuss. We are reluctant to pass without remark over several of these. The humidity of the Valley in different localities, and the remarkable dryness in others, its electrical phenomena, its tornadoes, and especially the distribution of its plants and animals, are subjects upon which we should be glad to dwell; but we must content ourselves with referring our readers for information on these points to the work itself.

This brings us to the third part of the volume, which treats of *Physiological* and Social Etiology. Some of the subjects embraced in this division, are—population and the physiological characteristics of the various races in the Valley, modes of living, diet, drinks, tobacco, clothing, lodgings, bathing, shade-trees, occupations, pursuits, exercise and recreations. We might make many valuable extracts from this part of the work. We should enlarge upon many of the points with great pleasure, but the printer warns us that we are approaching our limits, and there is still an important division of the treatise to be noticed. Dr. Drake thus concludes the first great division of his work:

"Our general etiology is now brought to a close. If the reader has found its perusal a work of labor, he will be prepared to estimate the amount which has been required to collect, arrange, condense, and give unity to so many diversified facts, connected with a country of such vast extent, and races of people so various. In doing this, I have introduced nothing which I did not consider necessary to a full understanding of the diseases which are to come under our consideration; for all peculiarities

of constitution, both corporeal and mental, exert a modifying influence on disease. In this country these peculiarities are not yet largely developed; but we may study their causes, and, as far as possible, infer their effects, which our distant successors will see in their full development. A synthesis of varieties and races is going on; and the result, I may here repeat, must be a new national constitution—physical and mental—of which the Anglo-Saxon, itself a compound, will be the basis and the governing element. The physicians of a future day will see, what we cannot now, a prevailing temperament, a stature, form, complexion, and physiognomy, characteristic of an indigenous, but greatly compounded race, with its own physical, intellectual, and moral constitution; its special liabilities and exemptions from d sease; its national idiosyncrasies, and the required peculiarities of hygienic regimen, and therapeutic treatment. In the course of this development, what hereditary diatheses may disappear, and what new ones take their places; what new maladies may arise, or old ones cease, or become greatly modified, under the joint influence of mingled blood, of climate, water, occupations, modes of living, customs, and moral, social, and political influences, cannot be specified; but a few predictions may be hazarded:

1. Autumnal fever will decrease, and typhus and typhoid fevers become more prevalent.
2. Gout will occur oftener than at present.
3. The diseases produced by the intemperate use of ardent spirits will diminish.
4. Consumption and scrofula will increase.
5. Apoplexy, palsy, and epilepsy will become more frequent.
6. Diseases of the liver will become less, and those of the mucous membrane of the bowels, more prevalent.
7. Lastly, mental alienation will be more frequent.

We are now prepared to enter on the study of particular forms of disease. In doing so, I shall not adopt the classification presented in any system of nosology, nor invent a new one; and yet I hope to proceed with such a degree of method as will be found sufficient to avert confusion. The Second Book will be devoted to febrile diseases, under the five following heads: 1st, Autumnal Fever; 2nd, Yellow Fever; 3rd, Typhus Fevers; 4th,

Eruptive Fevers; 5th, Phlogistic Fevers, or the Phlegmasiæ. The transition from general etiology, to that fever which, in its origin, has a close connection with soil and climate, is natural; and the transition from the phlegmasiæ to many other forms of disease, will be found equally natural; and hence I have placed them last, although in a system of elementary pathology, or nosology, they should stand first.

We proceed to notice, in our imperfect way, the second book, which introduces febrile diseases. Like the parts which have been passed in review, this book is divided and subdivided into many sections. The first chapter treats of the nomenclature, varieties, and geographical limits of autumnal fever, together with the topographical and climatic conditions under which it prevails. Dr. Drake prefers the term "*autumnal fever*" as involving no etiological or pathological hypothesis, and as including, at the same time, every modification.

Respecting the geogrophical limits of this fever in the great Valley, we have already given sufficient details, and shall not add anything on that head. The circumstances which impose these limits are indicated with clearness and ability. They are soil, living vegetation, surface water, and temperature, the *modus operandi* of each of which is specially considered. Thus, of the surface water, the author remarks:

1. Under the influence of solar heat it impregnates the air with vapor, giving a high dew point; and, other circumstances being equal, the evaporation is greatest where the heat is highest. This, of course, is in the southern part of the Valley, and there, as we have seen, the fever prevails most.

2. Surface water not only contributes largely to the production of a luxuriant vegetation, destined annually to perish, but is indispensable to the decomposition of what it has aided in producing. Hence, without its agency, none of the deleterious gases, which are supposed to be thus generated, could have an existence. But its pre-

sence in any or all quantities, will not answer equally well. If there be too little, the molecular movements of fermentation are arrested for want of a solvent—if too much, the atmosphere, indispensable to the process, is excluded; or the evolved gases are absorbed and retained.

3. Its presence is essential to those chemical actions, in certain soils, which are believed, by some writers, to generate exhalations that occasion the fever.

4. It is equally indispensable to the production of both animalcules and microscopic plants.

5. Both evaporation and condensation are known to be accompanied by electrical perturbations.

Thus, water is a necessary element, in all the hypotheses which have been framed to account for autumnal fever.

But a contrary and salubrious influence has been ascribed to water; for it is held by many that this fluid absorbs the noxious gas or gases, which they believe to produce the fever, and thus limits its prevalence. According to this opinion, the deep waters in the centre of a basin may imbibe and retain the noxious gases which the shallow waters of its margins have contributed to generate; and, in support of the hypothesis, it has been affirmed that the vicinity of cataracts and rapids is more unhealthy than the banks of the rivers in which they occur. The absorbed gases are supposed to be there liberated by the agitation of the water. The medical topography of Book I, presents several facts bearing on this hypothesis. Thus, Wetumpka, at the foot of the long rapids of the Coosa river; Louisville, at the falls of the Ohio River; and Maumee City, at the termination of the rapids of the Maumee River, are all infested with autumnal fever; but other towns, on the same rivers, are likewise scourged with that disease; and Oswego River, which drains the Montezuma swamps of western New York, has at its mouth a great number of mills, yet the inhabitants suffer but little from that disease. It prevails still less at the Falls of Niagara; and finally, at Zanesville, where a natural waterfall has been augmented by artificial means, and on the Kentucky River, where there are series of pools and dams, there is no special prevalence of the fever. Thus, the facts furnished, by our Valley, do not prove

that waterfalls eliminate a gas which is the cause of the disease under consideration."

We have only a single remark to make on the foregoing quotation, and that relates to the prevalence of autumnal fever in the city of Louisville. It cannot be said with propriety that this city is, at present, "infested with autumnal fever," however it may have been in former years. Late experience, we think, has fully demonstrated, that Louisville is one of the most salubrious cities in the limits of the great Valley. The cause which operated in years past to give it a different character has been removed, and autumnal fever, except in the form of mild intermittents, is comparatively a rare disease within its precincts. Nor are the cases of intermittent fever which occur, so often found on the margin of the river, at the falls, as in the suburbs of the city, fronting the ponds to the south, which still remain to send up their noxious exhalations. These sources of disease, which once abounded in what is now the heart of Louisville, are giving way before the hand of agriculture, and the zone of health is widening every year. Ten years ago a residence on Chestnut street was hardly deemed secure from the unwelcome visitant of "the ponds." At the present time, this street is regarded as entirely healthy, and Broadway is on the borders of the doubtful territory. As settlement goes on, and the ponds are removed farther and farther from the city, this street, too, judging of the future by the past, will enjoy the same immunity from fever and ague that now marks the older portions of the town.

Dr. Drake concludes his first chapter with the following excellent remarks:

"Having established the paramount influence of high temperature in the production of autumnal fever, it remains to inquire into the modes in which it may operate. I have already referred to its effect as an exciting cause,

but this view is too limited, and others must now come under consideration.

1. The long continued impress of summer heat upon the surface of the body, occasioning copious perspiration, and through the nerves of the skin sympathetically affecting the internal organs, more especially the abdominal, may predispose to this form of fever; and the cool nights of early autumn, acting on the same surface, may still further derange the economy. That such nights, and occasional sudden changes of temperature, are often followed by an immediate development of the fever, is well known.

2. Heat promotes great evaporation from all moist and watery surfaces, thus giving the atmosphere a high dew point.

3. It favors the fermentative decomposition of organic matter, and the production of new compounds.

4. It facilitates the multiplication of minute but visible animals, and cryptogamic plants, and may be presumed, therefore, to multiply the microscopic—both animal and vegetable.

5. It evaporates the superfluous water of ponds, swamps, marshes, and lagging streams, thus bringing them into a condition favorable to the more rapid decay of the organic matters which they contain or cover over, and thereby promoting the extrication of gases.

6. It dries the surface of the ground after the rains of spring and summer, and may (as has been asserted) cause it, in the act of desiccation, to send forth deleterious exhalations, different from those generated in deposits of decomposing organic matter.

7. It disturbs the equilibrium of the electricity of the atmosphere; hence, summer thunder storms are of almost daily occurrence on the coasts of the Gulf of Mexico; but on the shores of Lake Superior they are rare.

Thus solar heat plays an indispensable part, in every hypothesis which has been proposed to explain the origin of autumnal fever; answering equally well for the advocates of combined heat and moisture—miasmatic exhalations—microscopic beings, and atmospheric electricity.

We have now reviewed all the obvious conditions which seem to concur in the production of our autumnal fever, and endeavored to assign the *modus operandi* and influ-

ence of each. We have seen the necessity of their concurrence, from the fact that the absence of any one puts an end to the prevalence of the fever. These conditions are dead organic matter, resting on or blended with the mineral elements of the soil; water, not in any, but a certain quantity; and temperature, above the sixtieth degree, continuing for at least two months. And here we might stop, but for the instinctive propensity of the human mind to arrive at the knowledge of a single efficient cause; to which, therefore, a chapter must be devoted."

What is this efficient cause? Is it a special cause, or is it merely the joint operation of heat and moisture? Dr. Drake enumerates many substantial, and, in our judgment, conclusive reasons, for adopting the former opinion. It is something special—a superadded element to the constituents of our atmosphere; but whether gaseous or vegeto-animalcular, as Dr. Drake remarks, "remains to be proved."

How this poison, the reality of which Dr. Drake does not doubt, acts upon the human system, is discussed in the next chapter. Upon what surface it makes its primary impression, is the first inquiry. The Doctor does not believe that it is the skin, and he is not acquainted with "a single fact" which favors the opinion that it is the stomach. The only other surface impressible by the aerial poison, is that of the lungs. Through this inlet, therefore, it is probably received into the system. That many gases and vapors have the power thus to make their way into the circulation, there is abundant evidence for believing. Among the arguments adduced by our author in favor of this hypothesis, is the fact, that a suppression of perspiration tends to excite the disease, and that a copious perspiration, effected by art, in the forming stages, often averts it. He continues:

"While the function of perspiration continues active, the poison absorbed by the lungs may pass off through the skin; but being arrested in that exit, may, by its accu-

mulation, prove mischievous, and when it has already begun to do harm, a copious sweat may relieve the system of such an amount, that fever may be averted. Nearly connected with these views, and tending to the same point, is the fact, that as long as the nights continue warm, the disease does not become epidemic; but as soon as they become so cool as to check the functions of the skin, by diminishing its capillary circulation, and surrounding it with a damp atmosphere, from the liberation, by the reduction of temperature, of a portion of vapor which was insensible at a higher degree of atmospheric heat, the fever assumes an epidemic character."

What is the mode of action of the poison? Dr. Drake considers that it is analogous to that of the narcotico-irritating gases, which in large doses kill suddenly, and in small doses weaken, while they pervert the functions, upon which he remarks:

"If we concede to the cause of autumnal fever a peculiar narcotico-irritating quality, its necessary effects, in such a mode of application, will be those which constitute the first stage of that fever, reduction of vital energy, obtuseness of sensibility, suspended or perverted secretion, and diminished calorification; and from an equal necessity, they will be felt in all parts of the body, because the agent which produces them travels with the circulation. We may assure ourselves, that its first effects will not be increase, but depression of excitement, by referring to the constitutional influence of foreign matters, liquid or gaseous, when introduced into one of the serous membranes (as the peritoneum, for example), which are always those of depression as well as irritation. If we suppose such matters to be simultaneously introduced into all the serous sacks of the body, we should expect immediate reduction of the vital powers, and early death; though we can conceive of the quantity being so small, that the system would react, and fever and inflammation ensue. I can see no logical objection to this analogy.

"If we combine these effects with those supposed to be produced by the altered state of the blood, and with the whole, those which must necessarily and immediately result to that fluid, from the reactive influence of the dis-

eased solids, we have before us the pathological state which constitutes the first effect of the remote cause, and the first stage of the fever; a state which the hypothesis (for it cannot be regarded as an established theory) seems adequately to explain; and, by explaining, to commend itself to our consideration and confidence. Having now accomplished the objects proposed in this chapter, let us next proceed to inquire into the development of the fever."

To this succeeds his account of intermittent fever—the fullest, the most complete and authentic that has been given of the disease as it appears on our continent. Its development and pathological character, and its treatment in all its varieties, from the simple to the malignant form, are given with a minuteness and accuracy of detail which leaves nothing for the pupil or practitioner to desiderate.

Malignant intermittent is a modification of our fevers, in which the profession of our country feel a deep interest. The regions of the valley most infested with the fevers of this order, are, according to the observations of our author—*first*, the level portions of Mississippi, Alabama and Louisiana; and *second*, the southern shore of Lake Michigan, from Chicago round to St. Joseph river, and of Lake St. Clair and Lake Erie, from Lake Huron to Lake Ontario, near the estuaries of the creeks and rivers. But the intervening country, as he correctly remarks, is by no means exempt, although, in comparison with those cited, the cases are rare. He thinks that it has been increasing in latter years, and this increase appears to date from the visitation of epidemic cholera in 1832-5. The influence of the cholera atmosphere, he observes, "was very perceptible in the vicinity of Cincinnati for two or three years after that visitation."

The symptomatology, pathology, complications and treatment of the disease are described with minuteness, and the chapter is concluded with the following observations:

"I have several times used the word collapse, to indicate the state of the system in a very dangerous or fatal paroxysm. Since the year 1832, that term has been associated in the public mind with epidemic cholera, and can scarcely be used without suggesting that disease. In employing it in the history of malignant intermittent fever, it is by no means misapplied; for the failure in the power of the heart, the reduction of animal heat, the stasis of blood in the skin of the extremities, and the *post mortem* spasmodic contraction of the muscles of the extremities, observed in some instances, are so many points of identity in the two diseases. But there are still some others. Thus, as we have seen, the subject of malignant intermittent fever may keep on his feet, and even attend to business, up to the access of the fatal paroxysm, as the victim of cholera is wont to do, while laboring under the diarrhea, which may be followed by collapse and death in a few hours. Such patients seem alike unconscious of their condition, and incredulous of the predictions of danger. In the final stage, when death is impending, their intellectual functions are often unimpaired, or simply reduced to an aspect of stolidity, while their feelings and emotions are subdued into apathy. Further, these maladies, so constantly fatal when they reach a certain stage, are, even immediately before its arrival, controllable by very simple and nearly the same measures. Finally, cadaveric examinations have disclosed occasional vestiges of inflammation in both, but not of sufficient extent to account for the fatal termination.

There are, however, two striking differences. *First.* the fever has an indigenous cause, annually reproduced, and is confined to certain localities; but the cholera depends on a cause, which occasionally visits countries distant from those in which it is elaborated. *Second.* The fever is, essentially, periodical, while the cholera consists of a single paroxysm.

The well known fact, that in the midst of many cases of simple intermittent, not proving fatal, although but little shall be done, there may be a few which assume a malignant character, perplexes both physicians and the people. But this trait of character is not peculiar to that fever. It is equally true of yellow fever, cholera, scarlatina, and all other diseases which have an epidemic prevalence.

The whole, in this respect, are under one law, which doubtless connects itself in part with diversities of constitution."

The subject of malignant intermittent fever is one of so much importance that we shall present a brief summary of the treatment, as it is given in these pages.

Bloodletting has been resorted to by some physicians for the reduction of inflammation, on the hypothesis that a malignant intermittent is merely a high grade of gastro-enteritis; but the practice has proved injurious. Emetics have not been more salutary. Mild cathartics are admissible, but those which promote watery evacuations are "regarded as inevitably fatal." Calomel, once so much used in all forms of fever, seems to possess but little efficiency in this modification of the disease. Hot applications to the skin, and hot drinks, appear to be equally ineffective towards inducing reaction. The cold dash has been highly recommended by several practitioners as the most effectual remedy in the cold stage; but unfortunately the testimony on this point is contradictory. In the intermission it is agreed on all hands that bark, or sulphate of quinine is the remedy; the latter is in almost universal use. Respecting the *dose* to be administered, we quote the remarks of our author:

"When the sulphate of quinine was first introduced among us, it was given in one or two grain doses, in ordinary intermittents, and seldom in more than double that quantity, for the arrest of the most malignant. The periods of exhibition were every two, four, or six hours, according to the apparent gravity of each case. But although such portions might have proved successful in ordinary intermittents, they were soon found to be insufficient for the malignant; and the practice of giving the medicine, in what would once have been regarded as fatal portions, is now almost universal. Yet, even at an early period, a few physicians went far ahead of their brethren; and the late respectable Dr. Perrine deserves to be named

as one who, twenty-five years ago, in the State of Indiana, led the way in this bold medication. To make known the extent to which this medicine is prescribed by many of our physicians, and also to show, that in quantities far beyond the limits of ordinary practice, it does not occasion any permanent bad effects, I will mention the doses in which it is given by many of our physicians.

On the southern shore of Lake Erie, Doctor Tilden, of Sandusky, told me he has given forty grains at once; Doctor Manter, and Doctor Howard, of Elyria, sometimes administer half or two-thirds of that quantity at a single dose, to be repeated every two hours, through the intermission. These gentlemen practice in the latitude of forty-one degrees and thirty minutes. At Memphis, near the thirty-fifth degree, Dr. Shanks administers the same portions, and has sometimes given twenty grains at once. Between the thirty-third and thirty-second degree, in Mississippi and Alabama, Doctor Yongue has given, in a single intermission, as much as fifty grains, in ten grain doses; Doctor Davis, ten grains every hour, or every other hour; Doctor Dancy, from five to fifteen grains at once, repeated occasionally; Doctor Street, from ten to fifteen grains, in the same way; Doctor English frequently administers from thirty to forty grains in four or six hours; Doctor Echols, in anticipation of a paroxysm, took twenty grains at a single dose. The fit was averted, and perspiration came on, with a slow and full pulse; Dr. Sims often administers it in ten grain doses, frequently repeated; and Dr. Boling regards that dose as rather large, though he has administered fifteen or twenty at once, and knew forty to be taken in one intermission. But the boldest exhibition seems to have been made in Florida, between the thirtieth and twenty-seventh parallels, by some of our army surgeons. The assistant surgeon, Holmes, has administered twenty, fifty, and even eighty grains at once; and surgeon Harney, one of the senior, and most authoritative members of the medical staff of our army, has given from thirty to sixty grains at a dose, and thinks the larger the portion the better. It is probable that so many of our soldiers are, or have been, intemperate, that they can bear, or may even require, larger doses than are demanded in private practice. To these facts, intended to show the upward limit of the sul-

phate in our Valley, and at the same time its harmlessness in large quantities, I may, in reference to the latter, add the following: A man in Cincinnati, by mistake, took two drachms of the sulphate, without injury; a patient of Doctor Sappington, of Memphis, Tennessee, who had a relapsing intermittent, took eighty grains at once, instead of taking it in eight doses, as ordered, but was not injured; Doctor Fair, of Montgomery, Alabama, has told me of a patient, who took an ounce in three days, and recovered; and Dr. Hiriart, of Plaquemine, La., knew of an old lady, laboring under an algid intermittent, who took ten grain doses, every two hours, until an ounce was swallowed. No bad effects occurred, and she recovered.

But are the large doses which have been mentioned really necessary to arrest the paroxysm of a malignant intermittent? To this question I would reply: *First.* That a majority of our physicians do not resort to such portions, yet claim as much success as those who do; and I know not that their claim is groundless. *Second.* But in very violent and dangerous cases, as the medicine *may* be administered in great doses without any empoisoning effects, it would certainly be prudent to give it liberally.

In ordinary cases, a scruple taken in one intermission, will, I think, according to the experience of our profession, be found sufficient; and with the adjuvants to be presently mentioned, even half that quantity may often answer. But in cases of a threatening character, forty or sixty grains should be given in the same space of time. Whether any advantage is ever derived from going beyond that quantity, is, I suppose, an open question."

Opium, perhaps, ranks next to quinine in the treatment of this fever, and is often used as an adjuvant to that article. Its efficacy in warding off a threatened paroxysm all physicians of experience have had occasion to remark. The minor remedies are arsenic, piperine and calomel, in conjunction with the sulphate of quinine.

Remittent Autumnal Fever comes next to be considered. In the northern parts of the Valley, Dr. Drake finds that this fever exhibits a tendency to a continued form, and in the southern, a malignant or congestive tendency. Its

treatment has varied more, at different periods, than that of any other indigenous disease of the Valley. We quote Dr. Drake's account of the first plan pursued in the West:

"There never has been a time when our fever was regarded and treated, as a simple inflammatory affection—a mere phlegmasia. In the earliest period of immigration, it was believed to have something in its pathology which required other agencies than the antiphlogistic, although a portion of that treatment might be requisite. Two facts, especially, fixed the attention of the physicians of that day: *First.* The derangements of the biliary function: *Second.* The inherent periodicity of the fever; and these facts suggested the treatment. The disordered functional action of the liver was to be corrected; the stomach and bowels relieved from their morbid secretions; the arterial excitement reduced until intermissions were obtained; and then, the bark was to be administered to prevent the recurrence of the paroxysms, and complete the cure.

For the accomplishment of these ends, the lancet was employed in the more violent cases, especially when signs of inflammation in any organ were present; and blood was drawn several times in certain cases by some physicians. Others, however, scarcely employed the lancet in any; and referring to the admitted fact, that the drawn blood was, in most cases, free from buff, they argued that venesection could do no good, and might do harm, by inducing the typhus state.

Emetics, in those days, were standing remedies in this fever. The patient generally threw up a liberal quantity of bile, and felt more comfortable after the operation. In many cases they were repeated several times.

Cathartics were in equal, or even greater use, and consisted chiefly of calomel and jalap, or of calomel followed by castor oil, Glauber's salt *(sulphate of soda)*, or an infusion of senna, sweetened with manna. A close inspection of the discharges, from the stomach and bowels, was regarded as an indispensable duty at every visit; and the slightest indication of a return to a healthier state of the secretions, was seen with hope and satisfaction.

Tartarized antimony, generally used as an emetic, and often combined with a cathartic medicine, was, also, administered in nauseating doses; sometimes in simple solution, but oftener in combination with saline refrigerants, of which the most reliable were the nitrate of potash, and the acetate of potash, or common saline mixture, formed with sub-carbonate of potash and diluted vinegar, sometimes administered in a state of effervescence. The spirit of nitrous ether was likewise in universal use, and often added to the saline draught. But Professor Rush, who controlled the medical mind of the whole country more than any other physician has since controlled it, proposed the following recipe, which was almost universally adopted:

℞.—Nitrate of potash, - - - - 3 j.
Tartarized antimony, - - - gr. i.
Calomel, - - - - - grs. vj.
Triturate together, and divide into six papers.

One of these powders was given every two hours, through the hot stage. They always nauseated, and sometimes produced both vomiting and purging, while the nitre acted as a refrigerant and sedative.

If the calomel thus or otherwise administered, affected the mouth, no regret was felt by the physician, for, in fact, a mercurial action was thought to be curative. It was generally held, that calomel, on the whole, was the most important remedy, inasmuch as it would act on the liver (assumed to be the organ primarily affected), and at the same time arrest the fever, by its influence on the constitution. With these satisfactory reasons for its administration, it was generally continued for such a length of time, that but few patients got through an attack of the fever without a salivation.

Opium, in connection with sudorifics, was in general use, and after free evacuation from the bowels, through the afternoon and evening, Dover's powder, or the spiritus Mindereri, with paregoric, was administered to produce sleep and diaphoresis through the night.

Cupping was seldom practiced, and leeching nearly unknown. But instead of these, blisters were employed, not only to relieve local inflammation, but to subdue the fever, when no sign of inflammation existed; and hence, almost every patient had a blistered surface on some

part of his body, throughout the whole period of his confinement.

The object of all this treatment, was to prepare the system for the reception of the bark and other tonics. The length of time required to effect what was regarded as the necessary preparation, varied in different cases, but was scarcely ever less than a week. In many respects this method was judicious; and, although I have spoken in the past tense, it still maintains itself (with some modifications), in the confidence of a large portion of our physicians.

The indications proposed to be fulfilled by this treatment, were, on the main, correct; but some received too much, others too little attention, and a part of the means employed acted violently on the system, without superseding the morbid action.

Those who regarded the fever as arising independently of inflammation, often omitted bloodletting; when, even in the absence of inflammation, there were reasons for employing it; and, on the other hand, they who held to the inflammatory origin of the fever, placed too much reliance on that remedy. The *true* reason for resorting to the lancet was not perceived; but on this point I shall speak presently.

The exhibition of powerful emetics and cathartics, *before* resorting to the lancet, was wrong; for they would not operate kindly, and their daily repetition sometimes produced gastro-enteritis. The signs for their discontinuance, were a healthier aspect of the tongue, and of the alvine discharges; but, how could they assume a natural appearance, under the daily irritation of drastic medicines? Too much stress was, in fact, laid upon the indication—'to correct the state of the secretions.' Moreover, many physicians prescribed purging, for the purpose of lowering the excitement of the vascular system, when venesection would have accomplished that object much better, and without the risk of exciting irritation in the stomach and bowels.

As the calomel is, perhaps, the most efficacious of all antiphlogistic alterants, and, as the liver seemed to be more involved than any other organ, it was not strange, that physicians should have assumed that a mercurial action would supersede the fever; and, therefore, should

have administered that medicine both liberally and perseveringly. The curative results of this practice were seldom satisfactory, however; while its pernicious effects were sometimes of the saddest character.

The extensive blistering which made a part of that treatment was every way objectionable. It was sometimes resorted to, while the arterial excitement was high, when all the effects obtained were an increase of that excitement, and an extensively ulcerated surface, which added to the sufferings of the patient, and occasionally became gangrenous.

Lastly, the administration of the bark was deferred too long; though, we must admit, that it cannot be safely administered, at as early a period of the fever, as the sulphate of quinine."

Subsequently, when the doctrines of Broussais seized upon the minds of a few leading physicians, the fever was treated by many as a gastro-enteritis. The innovation was acceptable to the sick, for it relieved them from the excessive medication which had prevailed, and was unquestionably useful in putting a stop to "the *excessive* administration of tartar emetic, calomel and drastic cathartics."

The "*purgative practice*" receives the following notice at the hands of our author:

"At all times, and with all our physicians (except those who adopted the opinions of Broussais), purging, as we have seen, has been an important part of our *methodus medendi;* but it required a peculiar hypothesis, to resolve the *whole* treatment into that operation. This was at length supplied, in congestion of the portal circle and the vena cava ascendens. The removal of this congestion constituted the sole indication of cure, and was to be accomplished by increasing secretion from the liver and the mucous membrane of the stomach and bowels. Those who adopted this hypothesis, as simple as the gastro-enteritis of the French school—but suggesting, in the opinion of its advocates, a totally different practice—built their hopes on drastic purging, and, consistently, made calomel the governing article of their prescriptions. Thus the mercurial and cathartic treatment became united into

one method, which, in its application, substituted for the discriminating skill of the physician, the relentless punctuality of the apothecary and the nurse. Calomel, in doses which the world had not hitherto known, was given to excite the liver and mucous membrane into increased secretion, and drastics, in corresponding doses, to drain the bowels, as fast as those fluids were poured into them. The object was not to supersede the febrile action, by a mercurial irritation of the general system, but to rouse the liver and gastro-enteric membrane into secretory excitement, and thus transform the blood of the portal viscera into bile and liquor-intestinalis. To this end, scruple doses of calomel were regarded as sufficient for the mildest cases only; and drachm doses, at short intervals, became a familiar prescription, in ordinary epidemics; while, in those of greater violence, portions of half an ounce, an ounce, or an ounce and a half, were swallowed by the patient several times a day; till, in some instances, a pound, or a pound and a half, was administered to a single patient, and gave to his excretions the appearance of chalk! I am not at liberty to doubt the testimony collected in the south, on which I make this statement. In the State of Mississippi, a physician assured me, that he had given a patient one thousand grains, for three successive days! As the purgative effects of calomel do not increase with the dose, and yet purging was an essential part of the cure, medicines better calculated to excite it, were either alternated or combined with the calomel; and these were very commonly given in vast doses. A respectable planter, in the same state, assured me, that he had given, by order of his physician, such quantities as I thought incredible, till I met with a neighboring physician, who declared that he had administered, in a single case, six hundred grains of triple compound of aloes, rhubarb, and calomel, in equal quantities, for six consecutive days! Such instances, I am happy to think, embrace the extremest abuses of this method; and the number who reached these criminal limits, was perhaps not very great. It cannot be denied, however, that the practice, here reprobated, was, for several years, that on which numerous physicians of the west and south rested their hopes; and although, in general, they stopped short of the recklessness of a few, they carried their single idea to an excess,

which at length produced a revulsion in the public mind; and in numerous instances led to their being superseded by empyrics, who declaimed equally against the judicious, and the headlong administration of calomel. Under this reaction, it became, at least, difficult to exhibit that medicine in any dose, and the blue pill is now often substituted when calomel would be preferable.

It does not appear, I think, that the immense doses of calomel administered by a few fanatics, did any more injury than the drachm doses of the majority of the physicians. These doses often passed through the bowels undissolved, and inactive. They did not salivate or purge more than the smaller portions. They were, however, a revolting absurdity. The drastic purging to which the patients, day after day, were subjected, was no doubt as pernicious, though not so frightful to the people, as the mercurial ravages, which in many instances accompanied this practice. The former were invisible, the latter visible, to the public eye. That the purging practice was often contra-indicated by, or produced inflammation of, the the mucous membrane, no sound pathologist can doubt; and therein consists one of the weightiest objections to the practice. Another is, that in cases which had any latent tendency to those paroxysms of collapse, which are called malignant or congestive, excessive purging soon developed it, so that it has grown into a saying in many parts of the south, that congestive fevers are made by this practice. Further north, the same purging has often led to the production of a typhous state, equally, though not so immediately, dangerous. Finally, both this and the practice of the Broussais school, are liable to the grave objection, that they aspired to be curative, when, in their most judicious application, they were but preparative."

The tendency, at the present time, is to a more exclusive and entire reliance upon sulphate of quinine in the management of this fever, having first reduced it to the intermittent type, by the use of evacuants. Dr. Drake cites a great number of facts bearing favorably upon this method. His own experience is favorable to it, having himself pursued it, as occasional opportunities afforded, since the year 1838 or 1839. Physicians, from the Gulf of Mexico

to Lake Superior, testified to him, in strong terms, in its favor. He found that, in the Charity Hospital, at New Orleans, the mercurial and drastic practice had given way to mild aperients, occasional bloodletting, and an *early* exhibition of quinine; the effects of which had been, a diminution in the number of deaths, compared with the number of cases admitted into the hospital. All that he has heard from the medical men of the valley, has been of the same import; there is no counter-testimony. All are advocates of the "quinine practice." Some postpone it until their patients have been subjected to a longer preparatory treatment; but it comes in at some stage. "They are," as remarked by Dr. Drake, "only more conservative than their brethren—more attached to old ways—and yet, even the most cautious among them have abated considerably in their diversified, and often, perturbating measures."

Malignant remittent fever, as the most fearful form of our febrile diseases, is one which merits the special attention of the practitioner. It is to be recognised by the following characteristics:

"1. The pulse does not rise in fullness and force during the exascerbation, as in the other forms of remitting fever, but remains undeveloped; being generally small, frequent, weak, and more or less variable. But when the remission begins, it generally improves in every quality; yet it does not become as healthy, as in the remission of a simple or inflammatory case.

2. The feeling of abdominal oppression, and the anxiety, restlessness, and gastric irritability, are deeper in this than in other forms of remittent fever; and these symptoms never cease entirely in the remission.

3. A coldness of the hands and feet, or of the ends of the toes and fingers only, continues through the hot stage, while the trunk of the body and the head are in high fever heat. With the arrival of the remission this coldness, in the milder cases, is replaced by a natural temperature; but, in the more malignant, it continues, though, in gene-

ral, with some abatement. Doctor Pickett, of Mississippi, and many other experienced physicians, regard this as the most characteristic sign of the form of fever we are now studying.

Malignant remittents may be distinguished from malignant intermittents—*First*, by presenting remissions only; *Second*, by showing less reduction of temperature; *Third*, by the comparative absence of cold sweats; *Fourth*, by more delirium, and less apoplectic drowsiness. With these exceptions, the description of malignaut intermittents already given, answers very well for malignant remittents. In fact, the symptomatical diversity between them, is chiefly the difference between intermission and remission—between cessation and abatement. Yet, this difference is indicative of pathological modifications, which, from their obscurity and danger, demand a rigid investigation. In algid intermittents, the feelings of thoracic oppression, the dyspnœa, the thirst, and the icy coldness of the limbs, are either followed by death in a brief period of time, or they cease, and a comfortable intermission follows. In soporose intermittents, the apoplectic stupor ends in death, or the patient revives at the end of the paroxysm, and remains free, till the recurrence of the next. In both forms, there is such a complete suspension of morbid action—such a restoration of healthy function in the internal organs—that the patient seems almost free from disease, although the next paroxysm may prove fatal. He has neither fever, congestion, nor inflammation; but there is, in his system, a *disposition* to fall, again, into the pathological state of the preceding day; and the cure consists in changing or destroying this disposition, by the known antiperiodics.

Now, in malignant remittents, there is no time when the fever is absent; and whatever irritations or congestions are formed in the cold stage—whatever inflammations are set up in the hot stage—remain, though moderated in degree, throughout the remission. Their continuance is, perhaps, at once the reasons why intermissions do not take place; and the cause that this form of fever is not as curable as the intermittent. Whenever, in simple remittents, a complete intermission is effected, the antiperiodic puts an end to the disease, as certainly as if it had been, originally, of that type; and we may presume, that

if a perfect apyrexia could be brought about in malignant remittents, they would be as easily cured as malignant intermittents. The task lies in effecting this transformation —in procuring this absolute intermission."

Under every plan of treatment hitherto employed, this form of fever has often proved fatal. The most approved method is to bring about a remission, as perfect as possible, by refrigerants, the lancet, cups, purgatives, &c., and then give the sulphate of quinine. The difficulty, of course, is to prepare the system for the reception of this antiperiodic, which being accomplished, the cure is generally easy; but in the fatal cases, no period occurs when the quinine is admissible, or of any avail.

Protracted, relapsing, and Vernal Intermittents, are the subjects of the next chapter.

In chronic or relapsing intermittents, the plan is to ascertain the intervals of recurrence, and anticipate the paroxysm by the use of quinine, and during the long intermissions to administer some of the preparations of iron. The intermissions will be found to vary in different cases. In some, the paroxysm recurs on the seventh, in others on the fourteenth or fifteenth, in others on the twentieth, twenty-first or twenty-second; and in others, again, on the twenty-eight, twenty-ninth, or thirtieth day. The physician must be on the alert for the return of the paroxysm, and avert it by a timely resort to the antiperiodic. The effect of the iron is to remove the anemic condition of the system, which usually co-exists with these chronic intermittents, and thus subvert the tendency to the recurrence of the chill. This method, extensively employed in the Louisville Marine Hospital, has been found to be eminently successful.

In the next chapter, Dr. Drake considers the pathological anatomy and consequences of autumnal fever. We shall not attempt to give any account of the morbid appearances found in the bodies of patients who have died

of this fever. Some of the consequences are diseases of the spleen and of the liver, dropsy, and periodical neuralgia, the treatment of which is given under each respective head.

This brings us to the close of the volume, of which we have endeavored to give our readers a faithful impression. It is not necessary, in concluding our notice, that we should add many words to the running commentary which we have given in the course of this protracted article. Our opinion of its merits has already been gathered from what has been said. Its distinguishing feature is the broad philosophy which pervades and animates its pages. It abounds in details, and in fact seems occasionally to be burthened with them; but the details are made continually subservient to the establishment of great principles. A common observer might, in time, with the requisite industry, have collected all the facts embodied in it; but none but a philosophical mind could have wrought these facts into a system, or perceived those important truths which they are calculated to convey. Whether or not it is precisely the work to meet the wants and expectations of the great body of those into whose hands it is likely to fall, remains for time to determine; but we have the fullest conviction that it will take permanent rank among the best productions of our medical press, and that when an American abroad is led to speak of the authors who have done honor to their country, it is one of the works which will come earliest into his mind. We trust that nothing may occur to delay the appearing of the second volume. Y.

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Cases of Asthma successfully treated by Nitric Acid. By T. S. Hopkins, M. D., of Bethel, Glynn county, Georgia. The following five cases of asthma, cured by the use of nitric acid, have occurred in my practice since the summer of 1847. It is not my desire to attempt any explanation as to the modus operandi of this remedy, in the above disease. Its beneficial effects were accidentally discovered, and, after a fair trial in five consecutive cases, with the most entire success, I am induced to bring it to the notice of the profession, trusting that in other hands than my own it may prove a potent agent for the relief of a disease which so often resists the best-directed treatment. Several of these cases were from twenty-five to thirty-five miles distant from my office. Most of them were not seen by me from the time of my first visit and prescription until a cure had been effected. I describe them as I found them at the time of my visit, and from the history given by parents and masters, which I think can be depended upon.

Case I.—Emma, negro girl, aged five years, belonging to Mr. T. G., had been asthmetic almost from birth. Nightly paroxysms of dyspnœa, cough, &c., were represented as most distressing. During the day, she would be up and about the yard with the other children. At the time that I saw her, her respiration was somewhat embarrassed, with slight elevation of the shoulders during in-

spiration, and a very distinct mucous râle. Her appetite was impaired, and her countenance cheerless.

I ordered nitric acid, three drops, to be increased to five, three times daily, in a wine-glassful of sugared water. A month elapsed before I again saw this patient, at which time every symptom of disease had disappeared. I prescribed for her in December, 1847, and up to date no symptom of asthma has returned.

Case II.—I was called, in November, 1848, to see W. S., aged about six years, son of a planter of Glynn county. I was informed that this boy had been a subject of asthma for four or five years; that no expense had been spared for seeking for relief in his case; and that all the efforts of the best physicians in the neighborhood in which he had resided, had been in vain. When I saw him, he had cough, slight dispnœa, with mucous râle distinctly audible at the distance of several feet. By walking up and down the steps of the house, once or twice, the difficulty of breathing and cough would be much increased. He was very lively and cheerful, with a good appetite, and had had no fever for months. His father informed me, that, upon the least *exposure* during the day, he would be attacked at night with the most fearful symptoms. Wheezing, panting, incessant cough, distressing dispnœa, with impending suffocation, were the inevitable consequences (at night) of exposure during the day.

I ordered nitric acid, five drops, three times daily, in a wine-glass of sugared water, with a strict avoidance of exposure.

In a fortnight, he had been so much relieved that his parents imagined him cured, and discontinued the acid. In a few days he relapsed, and I was again sent for. I ordered the acid to be continued, as before, and in one month from the time of my first visit he was *cured*.

Up to date there has been no return of disease.

This boy's father died of phthisis pulmonalis. Several of his mother's family have died of the same disease; and all of *his* brothers and sisters, without an exception, have, in early childhood, been sufferers from enlargement of tonsils and ulcerated sore throat. He is now the picture of health.

Case III.—A mulatto girl, belonging to Mr. W. T. D., aged four years. This was a case of congenital asthma,

The symptoms in this and the following case, (aged about four years) were so similar to those of case one, that I shall not describe them.

The treatment was nitric acid, three drops three times daily, in a wineglass of sugared water.

This case resisted the treatment rather longer than the other cases, but was *cured* in about six weeks.

In Case IV., the immediate effects of the acid were perceived in a few days; and in eight or ten days she was cured.

Case V—I never saw. It was a negro girl belonging to Mr. C., of Camden county. She was seven years of age. Her master applied to me for a prescription, after giving some of the most prominent symptoms, which convinced me that the case was asthma, as he had declared it to be.

I prescribed five drops of nitric acid, three times daily.

I heard nothing more of this case for several months after I had prescribed, when I was informed by her master that she was well.

A sufficient time has elapsed, in all these cases, to convince me that they have been radically cured.

Should you deem the above remarks and cases worthy a place in your valuable journal, you will please to insert them. It is at least something *new* in the treatment of asthma.—*Am. Jour. Med. Sci.*

Chloroform in Puerperal Convulsions.—Dr. Keith gives the following particulars of a case of puerperal convulsions treated by chloroform. A lady, about the end of the seventh month of her first pregnancy, was suddenly seized with a convulsive fit, after suffering more or less for some days from headache, and slight feverish symptoms. The first fit occurred three hours before Dr. K. saw her, and in the interval she had three others. She had been bled, and the bowels had been freely opened. The fits ceased for a time, but after four hours they again recurred, and four followed each other in the course of less than an hour, without any return to sensibility during the intervals. The bleeding was repeated very copious-

ly, but seemed to have no effect in stopping the fits, or even in rendering them more moderate. Just as the fourth fit was coming on, the chloroform was administered. It had an immediate effect in restraining the convulsive efforts, and she soon became perfectly quiet. Dr. K. had ascertained, on first seeing the patient, that the os uteri was quite shut, and there had been no sign of labor coming on up to this period. Now, however, from the motions and expression of countenance, while she was still under the chloroform, he was led again to examine as to the state of the uterus, and found that regular contractions had come on. The action of chloroform was kept up, the labor went on steadily, and in six hours she was delivered of a still-born fœtus, without any recurrence of the convulsions. She slept for nearly an hour after the termination of the labor, when she awoke in a confused state, but perfectly rational, and almost free from headache. She made a most favorable recovery; indeed, she had not a single bad symptom from the time that the chloroform was administered. The urine was highly albuminous, becoming almost solid on exposure to heat. The coagulability gradually went off, and after a fortnight there was scarcely a trace of it.—*Monthly Jour. of Med.*, Aug., 1850.

Laryngotomy and Tracheotomy.—The question whether the operation of laryngotomy or that of tracheotomy should be performed for the relief of asphyxia, resulting from obstruction of the larynx, whether that disease be acute, or consecutive to a chronic affection of the organ of voice, is of very considerable importance to the practical surgeon, and has been most satisfactorily answered in favor of laryngotomy, in a very interesting paper published by Mr. P. Hewett, in the *London Journal of Medicine*, for February, 1849. In this communication, Mr. Hewett states that, in all cases of acute inflammation of the larynx, in adults, and in those cases that occur in children, from swallowing boiling water or other irritating fluids, the obstruction is seated *above* the inferior vocal chords; the mucous membrane covering them, or that below them not being in the slightest degree thickened; and

that consequently, as laryngotomy is a much simpler and safer operation than tracheotomy, it ought to be preferred in these cases.

John Erichson, Esq., states that he has been led to a similar conclusion in favor of laryngotomy by an inquiry into this subject, on which he entered some time since, and in the course of which he examined various recent specimens of inflamed and obstructed larynx, and those preparations of disease of this organ that are preserved in several of the pathological collections in London, without being able to meet with one in which an opening in the crico-thyroid membrane would not have relieved the asphyxia equally as well as one in the trachea. This examination determined him in future to have recourse to laryngotomy, rather than to tracheotomy, in acute obstructions of the glottis, whether primary or supervening in chronic ulceration or disease of the part. This determination was strengthened by the result of the post-mortem examination of two cases in which he had performed tracheotomy—the one, of old syphilitic disease of the larynx, followed by acute œdema; the other, of erysipelas of the glottis, in both of which the obstruction was found to be situated above the inferior vocal chords.

Case in which the Urachus remained open, and a ring-shaped Calculus, formed on a curved hair in the Bladder, was extracted through the Umbilicus. By THOMAS PAGET, Esq.—[In our number of January, 1848, p. 313, will be found recorded, by Dr. R. G. Cabell, of Virginia, a case of pervious urachus in an adult. Another example of this rare malformation has recently (June 11) been communicated to the Royal Medical and Chirurgical Society, by Mr. Paget.]—*Am. Jour. Med. Sci.*

J. C., aged forty years, had suffered for more than a year from frequent and painful micturition. On sounding, a calculus was readily detected. He mentioned, that upon attempting to make water, and during violent efforts at work, a portion of the urine sometimes escapes at the navel, which is open, and that, so far as he knows, it has been so from his birth. The catheter introduced into the bladder through the urethra was easily made to

appear at the umbilical opening. Thinking that the stone might be extracted through this aperture, Mr. Paget distended the bladder to the utmost with warm water, the umbilical aperture being tightly plugged, the patient reclining with his head lower than the pelvis, and with the intention of removing the plug, thinking that the calculus might be flushed out with the water; but it then occurred to him to try first the finger at the umbilicus. It readily passed, and when at full length down the unnatural passage, caught within the circle of the calculus sufficiently to enable him to drag it to the side of the bladder and extract it. The nucleus was found to be a hair, and on carefully truncating it, the projecting extremity was seen. The phenomena connected with the opening are thus described: There is a circular deficiency in the linea alba, an inch in diameter, its margin being thickened, and of cartilaginous hardness. Through this protrudes a hernia of the size of a goose-egg, which, in lieu of ordinary integument, is covered by mucous membrane, the surface, however, becoming dry, when exposed for any length of time. He never makes water whilst the hernia is out, for when called to an effort for that purpose, the first act of the bladder is gradually to draw into the abdomen the whole of the protruded substance; its first contractions have no other effect, and it seems not to have the power to force the urethra until that is accomplished. At the latter part of this act, at the instant of the disappearance of the hernia, there occurs rather a forcible jet of urine from the opening; the flow from the urethra also commences at this juncture, and the bladder is emptied in the usual way, the jet from the umbilicus ceasing, not to be renewed, except by a violent accelerating action of the expulsor muscles. He can retain a pint of urine. By watching the first contractions of the bladder, it becomes evident that to the thickened margin of the umbilical aperture are attached the muscular fibres of the bladder extended along the urachus. The pouch of the hernia is formed by eversion of the posterior part of the neck only, which is of course attached to the upper half of the aperture, and when protruded presses upon the hard edge of the lower half sufficiently to prevent the escape of the urine, except under restraining efforts of the

abdominal muscles. He wears a girdle, with a thick pad of flannel to catch the urine. With the extraction of the calculus, all the bladder symptoms ceased, and it was thought unadvisable to interfere with the congenital defect.

Observations on the Emmenagogue properties of Polygala Senega. By CASPER MORRIS, M. D., of Philadelphia.—Among the articles contributed to the materia medica by our own country, not one is more important than the polygala senega. However little its virtues may be esteemed abroad, there are few American physicians who do not recognize its importance in the treatment of certain stages of croup and bronchitis. My present object, however, is not to celebrate its praises in affections in which its value is so generally appreciated, but to draw attention to its effects in a class of cases which often baffle the efforts of the physician, and cause no little anxiety to the patient; to properties which, though recognized before, have been overlooked or forgotten. It is now more than twenty years since my attention was first directed to the emmenagogue properties of this root. I cannot recall the source from which the knowledge of its virtues was derived, but am disposed to ascribe it to the teaching of Professor Chapman, as I find, on reference to his work on therapeutics, that he speaks of them in very strong terms of commendation, and gives the credit of first drawing the attention of the profession to them, to the late Dr. Joseph Hartshorne. At the period to which I refer, I was induced to direct the employment of the senega for an unmarried lady, of about thirty years of age, suffering from suppression of the menstrual discharge of several months duration, combined with a catarrhal affection. So prompt was the restoration of the uterine discharge, that I considered it a mere coincidence, and remarked it as one of those cases of facts which may be misapplied so as to teach error instead of truth. Since then I have had ample opportunity to verify its claims to the credit of the result.

The tendency of its influence to the sexual and urinary organs has often since arrested my attention, in cases of

children to whom I have given it for croup, in which I have found difficult micturition follow its use, sometimes to a degree quite inconvenient. Pereira mentions, among its physiological effects, "increased secretion of urine, and a feeling of heat in the urinary passages," and adds: "it appears to excite moderately the vascular system, to promote the secretions (at least those of the kidneys and skin, *uterus* and bronchial membrane), and to exert a specific influence over the nervous system;" he mentions the fact that it has been used as an emmenagogue in amenorrhœa." In the Dispensatory of Wood and Bache, there is a mere casual allusion to its having been recommended in amenorrhæa; while Dr. Eberle refuses credence to the assertion that it possesses any emmenagogue properties. The strong testimony of Dr. Chapman deserves to be disseminated anew, as it may be overlooked among the many modern works on materia medica and pharmacy. I shall therefore furnish it for the benefit of your readers.

He introduces it first on the list of emmenagogues in the following terms;

"To Dr. Hartshorne, of this city, we owe the credit of having discovered the properties of this article as an emmenagogue. Conversing with him, some years ago, on the difficulty of managing certain forms of amenorrhœa, by the common treatment, he told me that he thought he had used it with advantage in these cases. Confiding in the accuracy of his observations, I determined to lose no time in making trial of the medicine. This I have done since, both in my public and private practice, to a considerable extent, and with sufficient success to warrant me in recommending it as one of the most active, certain, and valuable of the emmenagogues. It may be used either in powder or decoction, though I greatly prefer the latter mode. My rule, in the admistration of the medicine, is to direct about four ounces of the decoction, more or less, during the day, according to the circumstances of the case. But at the time when the menstrual effort is expected to be made, and until the discharge is actually induced, I increase the dose as far as the stomach will allow, having given sometimes as much as two ounces every hour. In the interval of the menstrual periods, I lay aside the medicine for a week or two, as, without these

intermissions, if it does not lose its power, it becomes disgusting to the patient."

Dr. Chapman directs the decoction to be made by putting one ounce of the bruised root in a pint of boiling water, in a covered vessel, and reducing it one-third by slowly simmering; and recommends that its nauseating tendency should be averted by the addition of an aromatic bitter. I have not found my patients able to bear so large doses as those indicated by Dr. C., and have been wont to add liquorice root, which disguises the peculiar taste of the senega, and to continue the process until it is reduced to one-half. A table-spoonful, three times daily, of this strength, is generally tolerated with difficulty. My habit is, when I can determine the period at which the natural tendency to the discharge will occur, to give the medicine in these doses for a fortnight before; and then, as Dr. C. advises, I have suspended it until the same period is again approaching. The causes of interruption to the menstrual discharge, being various, it is of course impossible to find any remedy which will meet every case. Where it depends on debility, or accompanies an anemic state of the system, other remedies than senega are more appropriate, or should be conjoined with it. Iron, aloes and myrrh, in combination, form an excellent remedy in such cases. The senega is appropriate to those cases where the suppression has been caused by improper exposure, and to those very frequent instances in which there is but little disturbance of the general health.

Every practitioner in our large cities must have had his attention arrested by the numerous calls for advice on account of obstruction, on the part of newly arrived immigrants, who complain of headache, and miserable general feelings, with swelling of their lower extremities. To what cause we are to ascribe the interruption of the natural functions, under such circumstances, it is difficult to say. The same result has been noticed in the cases of young women coming from the country to Paris. It is not, therefore, due to any impression made by the sea atmosphere, but, very probably, is caused in both cases by a less nutritious diet than has been customary, and the confinement in a vitiated atmosphere.

In those cases in which hemorrhoids, or an irritable condition of the lower bowels, prohibit the resort to the for-

mulæ into which aloes so generally enter, the senega may be resorted to with benefit, and also, when there is a diseased state of the ovaries or uterus itself. I have not yet tried it in cases in dysmenorrhœa, with scanty secretion, but believe it will be found a very admirable remedy for these cases, which are so distressing to the habitual sufferer, and vexatious to the physician. I shall certainly take an early opportunity to test its powers, combined with some of the narcotic extracts. Hellebore and hyoscyamus have been the agents on which I have heretofore relied, with a good degree of satisfaction; and the senega appears to me to partake of the same character as the hellebore, without that tendency to purge which is often displayed by the hellebore when given in full doses. I am aware that some of our best teachers are disposed to deny the existence of a class of remedies having a specific tendency to promote the menstrual flow, and rely on general treatment for the restoration of this function when suspended. This is, perhaps, a natural reaction from the disposition to rely on specific remedies in all cases. Either extreme is unsound. We may not disregard the state of the general health, but must adapt our specific means to meet special indications. I know of no reason to doubt the tendency of certain remedies to produce an action of the uterus in its unimpregnated state, which would not lie with equal force against the action of calomel on the liver and salivary glands, or ergot on the same organ at the time of parturition.—*Med. Ex., and Rec. of Med. Sci.*

Treatment of Aneurism by Compression.—Sir. B. Brodie, at a dinner given to him by the president and council of the Royal College of Surgeons, Dublin (29th August), in returning thanks for the honor done him, said that "It was not then the time to speak of the many improvements in scientific surgery made by some of the Irish surgeons; but he could not refrain from mentioning one of the latest. The mode of curing the formidable disease of aneurism by a bloodless operation, was brought into notice by Irish surgeons, and would, he was convinced, supersede every other plan."

Case of Uterine Pregnancy of over twenty years standing. By WILLIAM D. CHRISTIAN, M. D., of Appomattox Co., Virginia.—Mrs. T., aged about 40. In the early part of the summer of 1848, Dr. D. and myself were called to visit Mrs. T. We found her suffering with violent pain in the abdomen, attended with obstinate constipation. On making a minute examination of the case, we found a considerable tumor occupying the right iliac and right lumbar regions. Inquiry being made in relation to said tumor, duration, &c., we received from her the following statement: About twenty years ago, and not long after her marriage, she conceived, or felt all the symptoms of a conception, passed through the regular stages of pregnancy, quickening at regular time, &c., and at the end of her full term, nine months, she was taken with ordinary labor pains. In anticipation of a speedy delivery, a midwife was summoned. After remaining in labor for a day or two, (during which time she felt distinctly the motions of the fœtus) the motions of the fœtus suddenly ceased, and very soon after the labor pains subsided. A distinguished physician of Campbell county, Dr. S., was then called in to see her. The following is an extract from a letter received from him in answer to certain inquiries made by us of him in relation to this case:

"I visited Mrs. T. on the 8th of December, 1827; the old lady in attendance, then supposed her to have been in labor a day or two, and from the history of the case I presumed she was correct; upon examination, I found the *parts* moderately dilated, and in some short time after the examination, there were expelled from the uterus some two or three bunches of hydatids, varying in size from large shot to partridge eggs. After this, she became much relieved, and in an hour or two I left her again in the hands of the midwife, who informed me afterwards that she continued to improve. Early in the year 1828, she removed from the neighborhood, and I saw her no more until the 9th of January, 1833, when, on examination, I found the tumor described by you. I did not renew my visit, nor did I have any conversation with her on this subject, until the 5th of August, 1843, when I was again called to see her, renewed my examination, and then became fully convinced it was a case of extra ute-

rine pregnancy, (having had, in the meantime, a case similar to your description of Mrs. T.'s, excepting that the woman had no children after this conception, nor was there any ossification of the placenta; this case was one of twenty-five years standing.) I made known to Mrs. T., at this time, my opinion of her case, and she requested me to make a post-mortem examination at her death, and 'ascertain all about the matter.' I need not add that I am truly gratified you have done so."

During our attendance on Mrs. T., she exhibited signs of having again conceived. This was her eighth conception after the appearance of the tumor. She was then the mother of seven living children. On the 9th of December, 1848, we were summoned to attend her in labor, with this eighth fœtus; the labor was an ordinary one, the tumor not at all interfering; she did remarkably well, getting up unusually soon. Early in January she left the neighborhood, and was taken ill soon after her arrival at her new home, of which sickness she soon after died. We were requested by the physician who had charge of the case in her last illness, to aid him in making a post-mortem examination. On opening the abdomen, we found a compact tumor (resembling in shape and appearance an ostrich egg, though much larger), adhering closely to the walls of the abdomen anteriorly, and completely enveloped in a bony structure, except the upper part, which was the cranium of the fœtus. On cutting through this bony envelope, or sack, we found a perfect child, very much compressed, occupying the smallest possible space, and about the size of a six or seven months fœtus, but as perfect in all respects as a nine months one, and not in the least degree decomposed. The cord was entire, and adhering to the inner part of the sac, which was of a soft bony structure, as before remarked, and evidently the placenta. The edges of this bony placenta were firmly united to the frontal, parietal and occipital bones, thus, with the cranium of the fœtus, forming a complete osseous sac; there were also attachments at the elbows and knees. In this case, nature had protected the mother from danger, by making a covering for the fœtus, of the placenta, and converting this into an osseous structure. I am not aware of any case being reported in which the child was enveloped in a bony sac. Death, in Mrs. T.'s

case, was purely mechanical; by getting up too soon after delivery, and while the muscles of the abdomen were relaxed, the tumor, by its gravity, fell into the pelvis, drawing the abdominal parietes after it), and thereby pressing on the large intestine, and stopping the alvine discharges &c., thus causing death. As a matter of course, the left ovary was in a healthy condition, for she could not have conceived after this case of extra uterine conception, had it not been so, unless we suppose the right ovary was healthy, with this unusual condition of things in its region, which was not true in this case, and is not likely to be in any other case like it.—*Medical Ex., and Rec. of Med. Sci.*

Power of Lupulin in allaying Irritation of the Genital Organs. By GEORGE ZEIGLER, M. D., of Philadelphia. Being obliged to resort to a prolonged use of tonics, I took the combination of iron, sulphate of quinia, and lupulin. After some time had elapsed, I believed that the indication for which I took lupulin was fulfilled. I therefore omitted it, still continuing the use of iron and the quinia, ½ grain of the latter three times a day. In a few days, I began to experience symptoms of irritation of the bladder and urethra, with pain at the extremity of the penis, and frequent desire for micturition, somewhat similar to those resulting from calculus. These symptoms increased, and in two or three weeks became so violent and constant as to give me no peace. The thought then occurred that they might result from something I was taking, and my mind reverted to the possibility of their proceeding from the quinia. This idea was confirmed by the opinion of a medical friend. As the symptoms did not appear during the use of the combination of lupulin with the other remedies, we concluded that it would be better to recombine them. This was done, and with the happiest effect. The feelings of distress began immediately to subside, and in a few weeks entirely disappeared; and although I have continued the use of the above mentioned remedies for months since, I have had no further symptoms of the kind.—*Am. Jour. Med. Sci.*

External Employment of Liquor Chlorini.—DRS. CRAMER and SCHNEIDER have published communications recommending the more extensive use of chlorine as an external application. The good he had seen result from the application of *liquor chlorini* to malignant pustules and similar affections, induced Dr. Cramer to try its effects in bad furunculous swellings, the progress of which was thus surprisingly expedited, and the extension of the ulceration much limited, as compared to what occurs under the use of poultices. So, too, he has derived great advantage in employing it in large abscesses and in buboes, the matter sometimes becoming reabsorbed; and, where this is not so, the progress of the case is still very favorably influenced. Great relief followed its application to the neck, in a case of scarlatina, in a child, wherein suffocation seemed impending. He keeps compresses well soaked in the fluid constantly to the part. Dr. Schneider still more strongly recommends its use as a gargle, in variolous diseases, and in angina. He uses it diluted with water, and finds it exert a remarkable abortive power over variola, when affecting the tongue and throat, and angina in general.—*Brit. For. Med.-Chir. Rev.*, July, 1850, from *Casper's Wöchenschrift*, No. 8.

THE WESTERN JOURNAL.

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TRANSYLVANIA MEDICAL SCHOOL.

This ancient and once renowned institution is certainly in a strange predicament. During the last winter, reports spread all over the country that its faculty were anxious to abandon it, and in the spring the professor, who was looked upon as the soul of the institution, did actually resign. The professors were understood to have reported to the board of trustees that the school was in a very languishing state—that its classes had run down to about fifty pay-pupils, and that it was useless to try to keep it up any longer in Lexington. In a word, it was universally regarded as in a dying condition. When the citizens of that place, a few months afterwards, were interrogated on the subject, they replied that the school was extinct. An old friend of the institution, and once a professor in it, in due time, announced its "dissolution," in his Medical Journal, at Cincinnati, concluding his somewhat pathetic obituary in the following words: "Thus, Transylvania, with all of its ancient renown, yielded slowly to the influence of circumstances beyond her control, until, finally, *she has fallen, to rise no more.*" We came, in turn, to notice the melancholy event, and after our poor fashion pronounced our eulogy upon the great defunct. And yet, after all, it turns out that the school

claims to be alive. A writer in the October number of the *Transylvania Journal*, who signs himself "P.," asserts roundly that it is not dead, but that "the chairs are *all* filled with *able* teachers," he himself being one of the number!

Really, this appears a hard case. Is it possible that "P." is *Dr. Partridge*, revived, "the famous astrologer, almanac-maker and cobbler," whose history has been left on record by Dean Swift? The worthy dean professed, as is known, to give the last hours of the unfortunate astrologer, and reports his dying confession; in which he makes him say that he "repented from the bottom of his heart his impositions upon the people," adding, "I wish I may not have done more mischief by my physic than my astrology." The bell was tolled for him; the undertakers prepared for his funeral; his coffin was made, and his grave dug. The unhappy man came out, at last, and protested vehemently that he was not dead, but he seems never to have succeeded in convincing his friends of the fact. He says, touchingly, "I could not stir out of my doors for the space of three months after this, but presently one comes to me in the street: Mr. Partridge, that coffin you was last buried in, I have not yet been paid for. Doctor, cries another dog, how do you think people can live by making graves for nothing? next time you die you may even toll out the bell yourself for Ned. A third rogue tips me by the elbow, and wonders how I have the conscience to sneak abroad without paying my funeral expenses. Lord, says one, I durst have swore that was honest Dr. Partridge, my old friend; but, poor man, he is gone. I beg your pardon, says another, you look so like my old acquaintance that I used to consult on some private occasions; but, alack, he has gone the way of all flesh. Look—look—look, cries a third, after a competent space of staring at me, would not one think our neighbor, the almanac-maker, was crept out of his grave, to take the other peep at the stars in this world, and show how much he is improved in fortune-telling, by having taken a a journey to the other?" Nay," he continues mournfully, "the very reader of our parish, a good, sober, discreet person, has sent two or three times for me to come and be buried decently, or send him sufficient reason to the contrary; or, if I have been interred in any other parish, to produce my certificate as the act requires."

Now, we are not going to be so unkind to this Dr. Partridge as were the friends of the ancient doctor; we shall not insist on a certificate from him. We shall not even require him to stan bawling before his door, as did his great prototype—"alive! alive! ho! no counterfeit, but all

alive!" Nor shall we attempt an argument to show, that, the soul and body having parted, the school is, according to the definition of philosophers, dead; and that what appears to be it is now but "an uninformed carcass, walking still about, and calling itself Transylvania." But we do insist that Dr. "P." had no more right to scold us for falling into the common mistake that his school was dead, than had the "carcass" of his great original "to beat the poor boy who happened to pass by it in the street, crying, a full and true account of Dr. Partridge's death."

In the denial of Dr. "P.," he complains further, that we did not report the size of his last class correctly. All we can say is, that we gave the number upon the authority of himself and his colleagues, and they, we should think, ought to know. They told the trustees of the school that the number of their "paying students" was some fifty odd, and if there was any mistake about it, the fault is none of ours. As to what the people of the theatre call "*dead heads*"—names added for effect—dragged in to impose upon the community—if "P." thinks worth while to count them, why then we do not; that is all. If he can make anything out of them, we honestly confess that we cannot.

But "P." says, his pupils, the few that he had, were very much pleased with his school. We shall, most assuredly, not be so discourteous as to deny it. No doubt, the students have been highly pleased with the school; only, for several years past, they have taken rather an odd way to testify their satisfaction; they have been somewhat careful not to return to it themselves, nor to send their pupils thitherwards. Owing to this queer fancy of its friends, its classes, of late, have been growing "small by degrees, and beautifully less;" until, really, every body had come to believe that it was on its last legs. Its worst enemy, if enemy it have, might now, we are sure, take up the words, in sincerity, "May its shadow never grow less!"

FOREIGN CORRESPONDENCE.

The excellent foreign correspondent of this *Journal*, in a letter addressed to one of the editors, under date of October 1st, announces that the medical teaching of Paris was at that time enjoying a vacation, and that he had but little of interest to communicate. The following statements contained in his letter, have novelty and importance enough to entitle them to a more prominent place than in a private correspondence and we present them to the readers of the Journal of Medicine:

"Physical signs of diseases of the chest are undergoing important changes. 1st. It is *said* that false membrane gives rise to dullness on percussion. (?) 2nd. In pleurisy, with effusion and adhesion binding the lungs to the costal pleura, we have a *tympanitic* sound on percussion, proved by percussing a lung floating upon the surface of water. 3rd. Super-inflation, if I may use the term, that is forced distension *by air*, gives rise to a DULL sound on percussion, proved by forcibly distending the lungs with air, and percussing thereon.

You may recollect that some time since, M. Piorry made a great deal of noise about the almost immediate diminution of the volume of the spleen, in intermitting fever, upon the exhibition of the sulphate of quinine, which, by-the-bye, he always gave in solution. This is not only true, but the vehicle without the quinine, or simple water, and I've seen it tried, produces the same result. In intermitting fever, you know the spleen is always more or less enlarged; find one of these cases, and by percussion, properly employed, it is possible to determine very accurately the limits of the organ; give the patient a glass of water, and in a few minutes, not exceeding three, the volume of the spleen is found, upon again percussing, to be sensibly diminished. If this proves anything, does it not prove that the spleen is a reservoir of blood for the stomach during its quiescent state?

"Mr. Berrard, a physiologist of talent and promise, demonstrates, among many other curious things, that the temperature of the blood in the vena cava, after its exit from the liver, is 1½ degrees higher than it is in the vena portarum, before ramifying through that organ; and furthermore, that it loses this 1½ degrees whilst circulating in the pulmonic capillaries. That there is no sugar in the portal vein before it enters, whilst it abounds in the cava after it leaves the liver: that there is a direct communication between the hepatic vein and the vena cava: that there is a direct communication by regurgitation, between the inferior cava and the kidneys; and this he proves by giving strychnine to rabits, etc., and after the lapse of some minutes (15) innoculating the urine in the neck, and causing, by the innoculation, all the accidents usually resulting from poisoning by strychnine. He is now engaged in writing a work on physiology, destined, I think, to change the whole science of physiology.

"If you are already informed on these various changes, you will doubtless find their repetition here a great bore; but if they are new to you, their novelty and interest will fully apologise for the manner in which they are told. Believe me, dear doctor,

"Your friend and servant, "R. P. H."

USE AND ABUSE OF THE SPECULUM.

The recent attacks of Professor Tyler Smith, of Dr. Robert Lee, and of Marshall Hall, upon the views of Dr. James Henry Bennet, contained in Dr. Bennet's work on the Uterus, have called forth from the latter gentleman a scathing rejoinder. The work of Dr. Bennet is one for which we entertain a great deal of respect; it is a work of an eminently practical character, and one that has already done good service for the progress of medicine, and is destined to command confidence among medical men, as long as it may be studied. The attacks made by Drs. Smith, Lee, and Hall were not conceived in a very gentle, nor a very philosophical spirit, and displayed more of the sharpness of the partisan, than devotion to truth.

We think, however, that Dr. Bennet has given Drs. Smith, Lee, and Hall a series of knotty arguments, in return for their gratuitous assaults, and Dr. Bennet will be likely to carry the great mass of the profession with him. He is worthy of confidence, and may confidently rely upon obtaining and retaining it. B.

PROF. PAUL F. EVE'S CLINICAL SURGERY.

We have enjoyed the pleasure of listening to the clinical instruction of Professor Eve, at the Louisville Marine Hospital, and we express but the common opinion of those who have heard him, in saying that his Clinics are at once pleasing, impressive, and highly instructive. We admire, especially, Professor Eve's conservative surgery, which aims at the good of the patient, rather than the gratification of the surgeon; which struggles to lift up the victim of misfortune in preference to exalting the dashing operator. B.

PROCEEDINGS OF THE AMERICAN MEDICAL ASSOCIATION.

We have received the proceedings of the American Medical Association, which met in Cincinnati in May last. These proceedings make a respectable sized volume, but the generality of the Reports made on the occasion are less interesting than those of preceding years. The proceedings of 1849 were highly instructive, and honorable to American medicine. But the reports in the present volume are far from being as full and instructive as they should have been. The materials

for filling these reports were ample, and should have been used for the advancement of the profession. The report upon medical literature must be excepted, however, from these censures; it is an excellent and valuable contribution towards the elevation of medical science.

The annual convocation of the medical men of the Union is remarkably well adapted to the improvement of the profession generally, and we hope to see its influence extend until the entire profession feels the force of the genial current, and is carried upward to that position it should occupy in public estimation. We are confident that ample remedies for the evils under which the medical profession labors are in the hands of the members of the profession, and it is never too soon to commence the removal of abuses, and the destruction of evils. It is in this, as in the matters described by Junius: "that which is custom becomes a rule, and the precedent of to-day is law to-morrow." The elevation of medical excellence, the thorough preparation of men for the arduous and responsible duties of practitioners of medicine, the suppression of quackery, and everything that can tend to honor and elevate the laborers in medical science, are at the command of the profession, and should be used for the attainment of what all good men hope for, but in the fruition of which, few have faith. B.

PUFFING OF MEDICAL PROFESSORS, AND THE ARTS OF QUACKERY.

We intended to say something on this subject, but there is so much truth, so much good sense, in the following remarks of a correspondent of the *Boston Medical and Surgical Journal*, that we prefer republishing them, rather than anything of our own. We had marked the exceptional matter in the *New York Tribune*, upon which "Honestus" animadverts severely, and intended to base our exceptions to some professorial arts in the self-eulogistic line, upon the description of Professor Cox's lecture given the *Tribuue*, but "Honestus" has done ample justice to the subject, and we give way to him.

"QUACKERY IN THE REGULAR PROFESSON.

"(Communicated for the Boston Medical and Surgical Journal.)

"In an article in a recent issue of the Boston Medical and Surgical Journal, the writer alludes to certain cliques, said to be in New York, who make it a point to sustain their members, above and to the exclusion of all others. Every high-minded physician must coincide with the views there expressed. Nearly allied to this practice is that of

some physicians, either directly or indirectly sounding their individual praises. Various are their methods. They have, for every ear, some most wonderful case to relate, which has fallen under their care, and which invariably terminates successfully. Or, they have been called to such and such well-known individuals, who, the auditor is aware, have previously employed another physician. Or, they vaunt themselves of the number of their cases, and their consultations, and are ever in hot haste, pressing calls preventing a moment's delay. Or, they have been called to such an aggravated case, describing minutely and graphically the intense agonies of the sufferer, and how entirely and quickly *he* relieved him. Others, still, seek popularity by underbidding in price. He is "the poor man's doctor;" "the other physicians charge exhorbitantly," &c., &c. These are but a few, of the various ways, to which individuals resort, to talk themselves into notoriety. The reader will readily recall one or more such persons, who study these various methods, and practise them, quite as much as physic or surgery. This is nothing more nor less than sheer quackery. The most disreputable charletan does the same. Will a noble, high-minded physician stoop to such practices? He is conscious of worth, of rectitude, of talent, and he goes forth into the world, confident that true merit will be slowly, but surely, appreciated. He preserves his dignity, his self-respect, and his would be the last voice to utter a word in self-commendation.

"This immodest self-praise has even been heard from the professors in our medical schools, in the character of their circulars, and the publishing rather conspicuously the number of students, of graduates, &c., &c. In a late New York Tribune, is an article giving an account of the opening of the New York Medical College, in which the speech of Dr. Cox, Professor of Surgery in this College, was spoken of as "the principal feature of the evening. The writer says, "It was a splendid and elegant production. He pronounced a detailed eulogy upon his coadjutors in the professiorial chairs," &c. &c. I had hoped to have seen the above extract contradicted, supposing the statement incorrect. I could with difficulty believe, that the professors of that school would appoint one of their own number to appear before an audience, to pronounce a "detailed eulogy" upon themselves. Many other things of a like nature might be mentioned. "These things ought not so to be." The medical profession should not be degraded by such dishonorable practices. Let every member of the profession, who has its good at heart, speak out in censure of these abuses as they justly deserve. Would every physician be what he desires the world to believe him to be, he would no longer be obliged to resort to such means of self-glorification. HONESTUS."

These are crying evils and should be promptly checked. There is certainly enough high-toned feeling in a learned and liberal profession, enough sound, discriminating judgment in the community to curb the wrongs of which we complain. There may be justice in the plea

sometimes made that if a man cannot afford to pay a trumpeter, he must blow for himself, but we think he might have the grace to wait until he has a trumpet of his own to blow. B.

CHRONIC DIARRHEA.

This affection is often troublesome, and frequently resists all ordinary means of relief. We have recently seen, in the "Extracts from the Records of the Merrimack County Pathological Association," published in the *New Hampshire Journal of Medicine*, the *lapis divinus* strongly recommended in the treatment of Chronic Diarrhea. This article was introduced to the notice of English physicians, by Mr. Curtis, as an excellent remedy for otorrhea, and is unquestionably useful in that annoying malady. In the Records, referred to above, Dr. Moore reports the successful treatment of chronic diarrhea, with the "lapis divinus." It is made of sulphate of copper, nitrate of potass, and alum, of each sixteen parts—powder them separately, and mix them well together; fuse them in a glass vessel in a sand bath, and add one part of powdered camphor; break the mass in pieces when cold.

For otorrhea, two drachms of the "lapis divinus" are dissolved in an ounce of distilled water; a drachm of this solution is added to six ounces of rose or distilled water, which constitutes the proper strength for an injection in otorrhea. It is injected into the meatus twice a day. The strength of the injection is gradually increased, as the patient can bear it.

For diarrhea, Dr. Moore recommends fifteen drops, of the first solution mentioned above, three times a day. It does not nauseate.

Many cases of what are called Mexican diarrhea, yet linger in the land, and many cases of undoubted indigenous origin, and we hope the "lapis divinus" may have a fair trial given of its powers. We shall be pleased to hear from any of our correspondents who may try the remedy, so that a proper estimate may be placed upon it. B.

SURGICAL INSTRUMENTS.

The attention of the reader is asked to the advertisement of Mr. Brown, surgical instrument maker. Mr. Brown has resided in this city a number of years, and we take pleasure in commending him as a faithful, skilful, and excellent workman. He has made a number of instruments for the writer, and they proved themselves fully equal to those of the most celebrated manufacturers. B.